

The logo is centered within a white rounded square on a black background. It features the text "PaperClip" in a bold, sans-serif font, with the "I" in "Clip" being slightly smaller. Below this text is a large, stylized Roman numeral "III" that has a 3D, blocky appearance with visible edges and shadows. To the left of the square, there is a vertical dashed line with small square perforations. To the right of the square, there are three parallel, slightly curved lines that appear to be part of a clip or binding mechanism.

PaperClip

III

MANUAL



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INTRODUCTION

Congratulations on your purchase of PaperClip III, the word processor that turns your Commodore into an all-purpose writing tool. Before personal computers, the best that a writer could hope for was a self-correcting typewriter, a two-ribbon device that could type backwards over errors and "lift" them off the page. Before self-correcting typewriters, writers had to keep a stock of correction fluid to white out their errors. And before that, pencils with erasers were a popular item for those who didn't always get it right the first time.

The personal computer has changed all that forever. Your Commodore, powered by PaperClip III, is a multi-function media center, able not only to correct errors quickly and easily, but to check spelling, to cut and paste blocks of text from one place to another, to create footers and headers, and to carry out a multitude of other tasks. And because PaperClip can do all this, you will be able to spend more time creating your masterpieces, and less time dealing with the mechanics of organizing your thoughts on paper.

The following is a list of some of the things you will be able to do with PaperClip III:

- * Enter text, and change it as many times as you like, without wearing a hole in the paper;
- * Check the spelling in your document;
- * Choose from a variety of character styles;
- * Number pages automatically;
- * Create form letters;
- * Access electronic mail and exchange information with other computers using telecommunications;

You don't have to read every word of this manual to become proficient with PaperClip III. The manual is organized so you can find what you need quickly and easily, and in a form best suited to your style and experience. If you are already familiar with computers and word processors, you can start using PaperClip III right away, and use the reference section in Part Three to answer any questions that may arise. Or if you have a specific application in mind (such as writing a letter, for example) you can turn straight to the Guided Tour in Part Two for detailed

instructions. At the very least, however, you should read the section ABOUT THIS MANUAL so you will know where to find the information you need. After that, you should feel free to use the manual as you see fit. Remember, however, that the more you read, the more you will get out of the program.

ABOUT THIS MANUAL

If you are using PaperClip III for the first time, then you should begin with the section called GETTING STARTED, below. There you will learn how to start the program for the first time. This section ends with some important advice about taking care of your data. Please don't ignore it. After that, you can work through the manual in the way that suits you best. If you are new to computers or word processors, you're certain to find Part Two, the Guided Tour, informative and helpful.

If you are already familiar with word processors, or if you have a specific application in mind, you may want to turn immediately to the Guided Tour, which is Part Two of this manual. Our Tour will take us through the creation and production of a short letter (referred to here as your **document**). Here you will meet for the first time PaperClip III's Main Menu, which is the all-important road map into the program. You will also find a streamlined version of PaperClip III's important features and a short commentary, with hints, on how to get the most out of those features.

Finally, if you are an experienced computer user, and you feel that you can jump right into the program with a minimum of instruction, then all you need to read is GETTING STARTED. After that, you can refer to Part Three, the reference section, whenever you need instructions or help with any particular feature.

GETTING STARTED

In addition to this manual, your PaperClip III package should contain the following:

- 2 PaperClip III disks
- PaperClip III warranty and registration card



The disk labeled **PaperClip III C64** is designed for the Commodore 64 computer, and makes extensive use of **overlays** (see the beginning of the Reference section in Part Three) to augment the limited amount of memory available in the computer. It provides most of the features available in the Commodore 128 versions, with only a few changes and limitations. These will be noted in the text as they appear.

The disk labeled **PaperClip III C128** requires a Commodore 128 computer. It uses a reduced number of overlays, using the increased memory to keep the output system and options menus always available. Also, both the main program and the overlays for the C128 have additional features.

To use PaperClip III you will need:

- Commodore 64 or Commodore 128 computer
- Commodore 1541 or 1571 disk drive.
- Commodore 1902 or 1700 series video monitor, or equivalent
- Printer (optional)
- Printer interface (if your printer is not plug compatible with your Commodore). For more information on printers and interfaces, see **Appendix D**.
- at least 2 blank data disks
- Commodore 1750 RAM expansion (optional, for C128 users only).

Hook everything together using the manuals that came with the equipment as a guide. Now, turn on the monitor. If you are using a multi-mode monitor such as the Commodore 1902, set the video mode switch to "CVBS".

If you are using a Commodore 128 with a composite 40 column monitor such as the Commodore 1701, 1702, or 1703, make sure  on the keyboard is up. If you are using an RGB-type monitor such as the Commodore 1902, make sure the  key is down.

Note: Your keyboard (computer), disk drive, printer and video monitor combine to make up your Commodore system. Whenever you power up your system, remember that each component must be turned on separately and the computer should always be turned on last.

DUPLICATING THE PaperClip III DISK

Before you start really using PaperClip III, make a backup copy of the PaperClip III program disk using the instructions below, and store the **original** in a safe place. You should also back up all your important data disks often. Remember, BOTH sides of the PaperClip III disk need to be duplicated. Copy each side onto a separate disk – it's not a good practice to turn a disk over and use the reverse side.

If you have your own copy program, you should use it. If you don't have your own program, follow this procedure. Make sure the disk drive is empty, then turn the computer on. If it's already on, turn it off and on again to reset it. **C128 owners must have their computers in the 64 emulation mode to use the diskcopy program.**

Put the PaperClip III disk in the disk drive, type

```
LOAD"DISKCOPY",8 
```

After a few moments, the message READY. will appear, then type

```
RUN 
```

The program will refer to a **source** disk and a **destination** disk. In this case, the source is your original PaperClip III disk, and the destination disk is a new, blank disk. Follow the on-screen instructions. You will be asked to "insert destination disk to be formatted." After you have inserted your disk the next prompt will be "Disk Name?" You now need to name your disk. Choose any convenient name that will be easy for you to remember; you may use up to 16 characters for the disk name.

The next prompt asks for a "Unique Disk ID." An ID is any two characters you choose; they are used by the disk drive to identify the disk. Each disk should have a unique ID. Please enter an ID now and then wait while the disk drive finishes formatting the disk. This will take about 60-90 seconds.

Note: Never remove a disk while the disk drive activity light is on.

When the message "insert source disk" appears, insert the PaperClip III program disk and press **space bar**. You will be prompted throughout this duplicating procedure to exchange your

source disk for your destination disk (and vice versa). This whole process takes approximately 25 minutes.

Now that you have completed duplicating your PaperClip III program disk, you need to follow the same procedure for copying your Dictionary disk onto a second blank disk. The Dictionary disk is now your source disk and must be inserted into the disk drive with the dictionary label facing up.

When you have finished copying both sides, put your original away in a safe place and turn off your entire system.

LOADING PAPERCLIP III C64

Now turn on the monitor, the disk drive, the printer (optional) and your Commodore 64. (The computer should always be turned on last). When the word READY. appears, insert your backup copy of the PaperClip III program disk into the drive and type:

LOAD"PC",8

just as you see it here, with no spaces between any of the elements. You won't have to hit the shift key to get the capital letters (though you will need it to achieve the quotation marks). The comma is very important. After a few moments the message

READY.

appears again. Now type RUN and press .



The message "Loading PaperClip" will appear for approximately 30 seconds, the screen will go blank for a few seconds (**there will be no disk activity during this time**) and then will fill up with some copyright information. You will see file names displayed at the top left corner of the screen. These are program segments being loaded into memory.

Finally, a white bar appears at the top of the screen that reads **PaperClip III**. You are now powered up and ready to start using PaperClip III.

Not working? Make sure the program disk is correctly inserted in the disk drive, and that everything is hooked up and turned on correctly. Check the manuals that came with the computer and disk drive. If you still can't get it to work, contact your dealer.

Note: Before you begin your Guided Tour, please read TAKING CARE OF YOUR DATA, below.

LOADING PAPERCLIP III C128

If you are using a Commodore 128, turn on your monitor, disk drive, printer (optional) and computer. Then insert the PaperClip III C128 program disk in the drive. Be sure the drive door is closed. Press  . The program will begin to load.

The message "Loading PaperClip" will appear for approximately 30 seconds, the screen will go blank for a few seconds (**there will be no disk activity during this time**) and then will fill up with some copyright information. You will see file names displayed at the top left corner of the screen. These are program segments being loaded into memory.

Finally, a white bar appears at the top of the screen that reads **PaperClip III**. You are now powered up and ready to start using PaperClip III.

Not working? Make sure the program disk is correctly inserted in the disk drive, and that everything is hooked up and turned on correctly. Check the manuals that came with the computer and disk drive. If you still can't get it to work, contact your dealer.

Note: Before you begin your Guided Tour, please read TAKING CARE OF YOUR DATA.

TAKING CARE OF YOUR DATA

By following the guidelines offered here, you may avoid tiny disasters and big heartaches. Remember: The data on your disks is precious and deserves special treatment.

Floppy disks — the medium on which you will be storing your work — must be handled with care. The disks are really quite durable, but if you abuse them, they will not be reliable or usable for very long. Also, we all know that accidents happen. You will want to minimize the consequences of a serious power spike, a spilled soft drink or that rare, inexplicable moment of carelessness. So, here are some guidelines. Consider them as gentle rules and you will be happier.

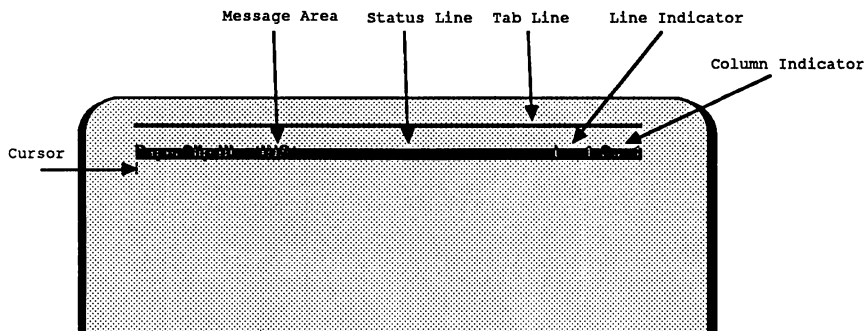
- Keep up-to-date backup copies of all your data and program disks.

-
- Keep each disk in its storage envelope.
 - Never remove a disk from the drive while the drive activity light (the light on the front of the disk drive) is on.
 - Never leave a disk in the drive when turning it on or off.
 - Never touch the disk surface: handle only by the protective jacket.
 - Fill out disk labels with a felt-tip pen BEFORE attaching them. Never write on the disk jacket or label with a lead pencil or ball-point pen.
 - Keep disks away from magnetic fields, such as those generated by telephone bells or speakers.
 - Don't expose disks to excessive heat or direct sunlight.
 - Anytime you invest a significant amount of time and energy in the data stored on a disk, **duplicate it!**
 - **Save** your work early, and save it often.

A GUIDED TOUR

PaperClip III has much to offer any writer, whether professional or amateur. If you are new to word processing and therefore, to PaperClip III, this section will introduce you to the program through simple step-by-step explanations of its fundamental features. The goal of the Guided Tour is to have you produce a short document, a note to a friend. Using PaperClip III's Main Menu, you will learn how to enter text and save it, how to edit it, and then how to format and print it. These tasks are the real basics of word processing. You will master them quickly and effortlessly after a little practice with the help of PaperClip III.




So, let's begin. You should have already read GETTING STARTED in Part One. Your computer is powered up and ready to go, and the screen on your monitor looks like this:



At the top of the screen there is a white bar with **PaperClip III** written on it, as well as ***INS*** (the program is in INSert mode), **L=1** and **C=1**. This is the **Status Line**.

The thin line above the Status Line is called the **Tab Line**.

Below the Status Line is a small square blinking in the upper left-hand corner of the screen. This is the **cursor**.

Look on the keyboard — find the  and  keys grouped together at lower right. These are the cursor keys. They are used to move the cursor around. Unshifted  moves the cursor down and

SHIFT **↑** moves it up. Similarly, unshifted **→** moves the cursor to the right while **SHIFT** **←** moves it to the left.

Not happening? Check the **SHIFT LOCK** key – make sure it isn't pushed down. If it is, press it once to bring it up.

Note: The Commodore 128 has two sets of cursor keys: those listed above and the four gray arrow keys grouped together along the top row of the keyboard. They may be used interchangeably.

Try pressing **↓** a few times.

See what happens? The cursor moves down the screen. Try it again, while watching the **L=xxx** near the right end of the Status Line. The number (represented by xxx) tells you which line the cursor is on.

Now press **→** and look at the **C=xxx**. The number indicates what column the cursor is in.

Press the key marked **CLR HOME**. The cursor jumps back to the upper left-hand corner, **L=1** and **C=1**.


TYPING IN TEXT

Now you are ready to begin your document. So, press

F7

This brings PaperClip III's Main Menu up on the screen. PaperClip III uses several menus, or command lists, to adjust, set, select or control many commonly used functions. The Main Menu is the most important of these because it is through the selections that appear there that we access most of the program's features. Naturally, we will be using the Main Menu throughout our Tour. For the moment, do not worry about the selections we don't use. They will all be fully explained in Part Three and we encourage you to refer to that section later on. For now, keep in mind that our immediate goal is to produce a simple document.


Note: Anytime a menu is visible, pressing **CONTROL** will remove it. The key you pressed to access the menu will also cancel the menu display.

By using the  key you can move the highlight bar that appears in the Main Menu up and down. Highlight the selection **New Document** and press




This command confirms your request by asking,

Are you sure?

Type Y (for yes) and then press . The system positions the cursor in the upper-left corner of the screen so you may begin typing.












Note: The **New Document** command clears any text currently in memory. Be sure to save any text that you want to keep before selecting the **New Document** command.

To practice using all the letters on your keyboard, type the sentences below. Don't worry if you make a mistake.

When you get to the right edge of the screen, keep right on typing, don't press .

The quick brown crafty fox jumped over the lazy, dozing dog! Can we ever again feel secure about our (barnyard) animals?

You can see that PaperClip III automatically jumps down to the next line upon reaching the right edge of the screen. When you use PaperClip III, you type each paragraph as one very long line. The line is divided on the screen into shorter lines so you can see it all. For convenience, it divides the lines between words – this is called "word wrap." If you type in a required return, a "+" will appear on screen to indicate that return. + is the system's **return marker**.

Now let's explore the cursor keys a little more (additional C128 cursor keys appear in parentheses). Remember, move the cursor down by pressing  (or ); to the right by pressing  (or ). If you want to move the cursor to the left, press   (or ). To move the cursor up, use   (or ). Try it out! Don't be afraid of moving the cursor over the text you've typed – moving the cursor doesn't affect text. And you can always get back to Line 1, Column 1 by pressing .

Now try holding down a cursor key. The cursor will pause, then zip along. Notice what happens when you move your cursor to the right at the end of the line — it jumps down to the beginning of the next line. If you move your cursor to the left when it's at the beginning of a line, it will move up to the end of the preceding line.

Now, move your cursor past the bottom of the screen while keeping an eye on the text you typed in. Notice how the text "scrolls" up off the screen. Move the cursor back up to the top, then keep going. The text reappears.

This "scrolling" allows you to enter far more text than you can see on the screen at one time. In fact, the screen acts like a "window" on your text, which can be as much as 499 lines! (If you're using a C64 with a 40-column display, it's 202 lines, which is approximately two and a half pages of text.)

EDITING TEXT

In the text you typed, move your cursor back on top of the **l** in the word **lazy**. Now type:

really

PaperClip III automatically makes room for the new word. This is what word-processing is all about — being able to change text quickly and easily. Want to delete some characters? Press **DEL** in the upper-right corner of the keyboard, and watch what happens: the character to the left of the cursor is deleted. As you become more familiar with PaperClip III's editing functions, you'll want to refer to the appropriate sections of Part Three for guidance on how the program's editing capacities can give your document a more finished, professional look, and give you more time for your writing.

So let's begin a new document. Remember that the New Document command erases any text currently in memory. The samples about the fox will be automatically deleted. Now, press **F7**, highlight **New Document** and press **RETURN**.

Type this note as it appears and we'll go back and fix the errors later.

Dear Pat:←

←

←

Congratulations on getting your new Commodore computer and PaperClip III. I know you'll enjoy them. This note is to remind you to always take good care of your data. To accomplish this goal, you should take a vow to:←

Eat and drink in the kitchen-not around the computer.←

Keep anything magnetic separated from your data by at least 10 feet.←

Always use a felt-tip pen around your work.←

Never let your brother use your disks.←

←

Best of luck,←

Chris←

CREATING AND SAVING A FILE

You know how to type text in and edit it. Now you have to learn how to tell PaperClip III what to do with your text. Of course, you'll want to save it on disk. Once your text is stored on disk you can work on something else or even turn the computer off. Your text is called a "file" when it is "saved" (stored) on a disk. Once saved, a text file can be recalled or "loaded" to the screen at a later time.

Formatting a disk.

Before we can save our text on disk we have to prepare that disk to accept and recognize our document. We must, therefore, format a disk so that we can store our information there. When you format the disk, you provide a name and an ID code. Any combination of letters and/or numbers are allowed but it's a good idea to use a name or a phrase that will remind you of the data you are storing on the disk. The disk ID is used by the drive to keep track of which disk you are working on at any given time.

Unlike many other word processing programs, PaperClip III allows you to format a disk at any time during your work. It will, of course, save you time and housekeeping hassles if you format your disks BEFORE you begin your documents. However, we are in the middle of our project and we need a formatted disk now. So, let's create one.

To format a disk, you need to put it in the disk drive. So the first thing you have to do is remove the PaperClip III program disk from the drive and insert the new, blank disk. Do that now.

Note: Be sure you put in the correct disk. Any data on the disk will be destroyed by the formatting operation.

Now press **CONTROL**.

You get the message "Control option?" Now type

SHIFT >

The disk command prompt > will appear in the Tab line at the top of the screen. This allows you to send commands directly to the disk drive. To format the disk, you need to send the **new** disk command. So, press N.

Now enter the drive number, followed by a colon. If you are using a single drive, enter the number

0:

Type in the name you want to label your disk. You may use up to 16 letters and/or numbers. After the disk name, enter a comma, then a two character disk ID. The resulting command should look like this:

>n0:your diskname,ID

To format the disk, press **RETURN**.

This will take a minute. When the activity light in the front of the drive goes off, your disk is formatted and ready to receive text.

SAVE THE DOCUMENT




So, let's save the text you've been experimenting with, which we have called your document.

Press **F7** to return to the Main Menu. Again, move the highlight bar with the **↑** and when the selection **Save Document** is highlighted, press **RETURN**.

The Tab line of this new screen should be asking the question

File name?



Each file stored on a disk must have a name to differentiate it from other files on the disk. File names can be up to 16 characters long, and can contain letters, numbers, spaces, and punctuation (it's recommended that you not use punctuation in your file names, as many special cases exist).

Type in **samplenote** for the file name. If you make a mistake you can use the   and  keys to edit the name. When you have entered the name, press



The next question on the Tab line is,

Drive number?

PaperClip III needs to know which drive contains your data disk. The program defaults to **0**. If you want to save your data (your document) to the disk in drive **0**, press . If you have two disk drives, and you want to save your data to the disk in the second drive, type **1** and press .

Now PaperClip III will save your text. The disk drive activity light comes on, the motor whirrs, after a short pause the Status Line will read

0:samplenote

When the activity light on the disk drive goes out and the cursor starts flashing again, your text has been saved on the disk.

Note: Be sure your disk drive is on before saving text. If you receive an error message when you try to **SAVE**, take the disk out of the drive, turn the drive off and on, then save again. It is a good idea to validate any disks that result in directory errors. (See the Reference section).

For purposes of our Guided Tour, let's say you have to take a break now. To exit from PaperClip III, to quit the program, simply take the disk out of the drive, and turn off the computer, disk drive and monitor. Don't be concerned about the text that was on the screen

when you switched off the computer. Remember: you have already **saved** that text on your newly formatted disk!

It's some time later and you are ready to resume working on your document. You power up your system, using the copy of the PaperClip III program disk. Go through the same routine as before (look at LOADING PAPERCLIP III above, if you'd like a reminder of how we did this).

LOADING FILES

You've typed your text, created a file name for it and saved it. You would like to print it now, but you want to correct a spelling error and delete something that might be better left unsaid (that bit about Pat's brother was a little strong). You have to bring your document back up on the screen; you have to **LOAD** it. But even your Commodore won't be able to do this if you haven't put the correct disk in the drive (the one you formatted, named and saved your file on). So take the program disk out of the drive and put your text (or data) disk in. Press **F7** once again to return to the Main Menu. This time highlight **Load Document** and press **RETURN**.

In response to the prompt

File name?

type in **samplenote** then press

RETURN

The disk drive will whirr — after a few seconds the text from your file will scroll onto the screen.

Note: If the message **File not found** appears, check to make sure that the correct data disk is in the disk drive. Then try again, making very sure you type the file name correctly. If that still doesn't work, check the **Disk Directory** (this option can be selected from the Main Menu)— maybe your document isn't on your disk for some reason.

Note: Always save the file you're working on before loading another file. The file that is loaded always replaces the text currently on the screen (and in memory). It's important that you save what you're working on before loading another file.

Now you can make your corrections. If you wish to change some text, do it in the way we described above in **EDITING TEXT**. For instance, you want to correct "lick" to "luck." Move the cursor down and over to the c in "lick" using **↑** and **←**. Press **INS** and the i disappears; type u and the error is corrected.

To erase the **line** about Pat's brother, follow this procedure:

Put your cursor on the **N** in "Never" in your sample note, then press **CONTROL** and then enter - [the minus sign], and now press **CONTROL** again to exit the Control mode.

Let's suppose that all corrections are made and your document is ready to print. Ordinarily, you would press **F7** to bring up the Main Menu, select **Print Document** and wait for the printer to complete its work. But we can't do that right now. While you are ready to print your document, the printer is not ready to do its part. This is because your printer has not been formally "introduced" to your computer. You must do this now.

PRINTER FILES

A printer is actually a kind of specialized computer. There are many different kinds of printers, each with different commands and characteristics. The PaperClip III program disk comes with separate **printer files** for the most popular kinds of printers. These printer files tell PaperClip III how to properly control your particular printer.

Selecting a Printer for the C64

Put the PaperClip III program disk into your disk drive so you can bring up the **Printer Selection** menu.

Press **F1**

The message **Fetch setup 64 ? Y** will appear on the Status Line. Press **RETURN** to confirm. The message "Please insert system disk" appears. Since your system disk is already in the disk drive, press **RETURN**.

Now press

F1F1

to invoke the Select Printer Manufacturer menu. Move the highlight bar to the appropriate printer manufacturer and press **RETURN**. In the same way, select the appropriate printer model.

Note: If you don't see your printer manufacturer listed, select one of the **Miscellaneous** options. Another menu listing printer models will appear. Select the appropriate printer and press **RETURN**. If your printer is unlisted, you should select a listed printer that you know to be compatible with your own or see CREATING YOUR OWN PRINTER FILE, below.

PaperClip III will load the printer file from the disk and install it inside the program.

Select "Perform Printer Test" to ensure that you have selected the correct printer driver and that your configuration is set correctly.

Selecting a Printer for the C128

Put the PaperClip III program disk in the disk drive and press **CONTROL**. When the question "Control option?" appears, press the asterisk (*) and **RETURN**. The Status line displays the message "Fetch overlay." Enter **-setup 128** **RETURN**. When the cursor comes back, press **F1F1F1**. Your screen will now be displaying a menu called Select Printer Manufacturer. Remove your program disk from the disk drive and insert your **copy** of the Dictionary disk. (The original of the Dictionary disk, which also contains the printer files, is located on the reverse side of your **original** PaperClip III program disk.).

Move the highlight bar to the appropriate printer manufacturer and press **RETURN**. In the same way, select the appropriate printer model. (If you don't see your printer manufacturer, see note above). If your Printer Test is not functioning, do a Video Preview (see section on Video Preview), then try the Printer Test again.

Press **CONTROL** to exit the Select Printer Manufacturer menu and press **F7** to access the Main Menu so you can look at your system's "Configuration."

SAVING YOUR PRINTER FILE TO DISK

Note to C128 users: Your program disk is so full that you will need to scratch the existing default printer file (Commodore MPS801) to make room for your printer file. To

scratch the Commodore MPS801 file, view the Directory of your program disk. (Be sure the write-protect tab is off and that you are using your **copy**, not the original of the program disk). Then position the cursor on the first letter of the Commodore MPS801 file and press **SHIFT** S.

PaperClip will prompt "Scratch Commodore MPS801?" Enter Y and press **RETURN** to confirm. Now you have space available on the disk to save **your** printer file as the default.

When PaperClip III starts up, it automatically checks the disk drive for a special file called **pciii configure**. If it is found, this file tells PaperClip III exactly how to set itself up. It 'configures' PaperClip III – the name of the printer file to use with your printer is part of this information.

If you "save" your particular configuration, you won't have to re-load your printer file every time you use PaperClip III – it will be loaded automatically. Follow these steps to save your configuration.

Be sure the printer file has been loaded into memory. You can verify this by looking at the printer file name displayed on the Main Menu. Press

F7

The Main Menu will appear. Move the highlight bar down to the line Save Configuration to Disk, and press

RETURN

In response to the **File name? pciii configure**, press **RETURN**.

This accepts pciii configure as the file name. Enter the drive number your copy of PaperClip III is in and press **RETURN**. PaperClip III will ask, **Replace Existing File?** Respond by pressing Y **RETURN**. PaperClip III will save your configuration. Now perform the following routine:

The prompt "Save printer file? N" appears.

Enter Y and press **RETURN**.

The prompt "File name?" and the name of your printer file appears. Press **RETURN**.

Enter the drive number and press **RETURN**.

You will then be asked to "Replace existing file?" if the file already exists on disk. Enter Y and press **RETURN**.

The next prompt, "Save Character Set?" saves the character set with your configuration.

Enter Y and press **RETURN**.

Press **RETURN** again to confirm the english/french character set.

Enter the drive number and press **RETURN**.

When PaperClip asks "Replace Existing file?" enter Y and press **RETURN**. Your configuration is now saved to disk. Next time you boot up PaperClip, your printer file will load automatically. To change any menu option, just make the necessary changes and save the new configuration.

PRINTING

Now both you and your printer are finally ready to start printing. Make sure the printer is turned on, ready and loaded with paper.

To output text to the printer, select the **Print Document** option from the Main Menu. PaperClip III will prompt you to insert your system disk if the printer file is not already loaded. Your document should begin to print out.

Output to printer can be canceled by pressing **CONTROL** twice. Printing will stop, though not instantaneously.

Note: PaperClip III offers you additional printing control through its Printer Output command, **CONTROL** O. See the Reference section.

Your document is not printing? Don't be upset. There are many details that vary from printer to printer – printing is the most difficult thing for a beginning (or even an experienced) user to learn. You may spend a lot of time figuring it out. But be patient. Review what we've said here – eventually, using trial and error, you'll get there! If you can't seem to make it work, look over the checklist we've provided in the Reference section–Output.

Once you get the output printing, you'll see that the text is printed on the screen at the same time it's being printed on the paper. The printout can be paused by pressing the space bar. Your printer

may print a few lines before stopping. If you want to cancel printing after pausing, press **CONTROL**.

BASIC FORMATTING

So now you know how to edit and print text. But what about the format or style of your document in its final printed version? Not to worry. In many respects this usually tedious job is taken care of automatically by PaperClip III. Unless you give specific formatting instructions, the program assumes you want your document printed single spaced on regular (8.5" x 11") paper with one inch margins on the right and left sides.

But let's say you want to double space or start a new page, change the margins, or introduce a comment line. You can do it, concisely and clearly, but you'll have to add formatting commands. What follows is an example of how you add such commands. Here we will change single line spacing to double spacing (see Part Three for other formatting options).

THE CHECKMARK ✓

A ✓ is produced by pressing



It will appear on the screen as ✓. When PaperClip III encounters one during printing it interprets everything up to the return marker (+) as formatting instructions. These instructions won't appear on the printed paper, but text after that point will be printed according to those specifications.

Note: The ✓ must appear at the beginning of a line (column 1), and both the ✓ line and the line above must end with a return marker (except line 1).

The command to set line spacing is **spX**, where X represents the **number** of line spaces. Therefore, if you want to double-space any part of your document, you must enter

+  sp2 +

These keystrokes will appear on your screen as:

+
✓sp2+

Double spacing will begin from this point and remain in effect throughout this document until you cancel or change it. For example, ✓sp1← reverts back to single spacing while ✓sp3← will give you triple spacing. When you open a new document, single spacing, the default setting, will be in effect automatically.

CONGRATULATIONS

You've now completed the Guided Tour. Eventually you will want to consult Part Three for more details about all of the subjects we have covered and many others as well. Look through the Table of Contents for direction if you need more information about an operation or if you are simply hungry for more details about topics that interest you. Remember, the more you read and learn, the more you will get out of this program. But go at your own chosen speed. You are not in a race. Master one section of the program at a time and you will discover new uses and applications for your computer. Enjoy PaperClip III and work at improving your skills with it. It will repay your efforts with great results.

REFERENCE

We hope you will use this reference section and the Appendices which follow, as resources to satisfy your interest and curiosity. Here you will find detailed explanations of PaperClip III's exciting capabilities combined with a functional description of the program's outstanding features. Certainly, refer to this section for information, but refer to it also for enjoyment. The more you know about PaperClip III, the more pleasure the program will provide.

PaperClip III — An Overview

How The System Works

PaperClip III represents a significant step forward for Commodore computer based word processing systems. Its unique power and functionality results from a system known as dynamic program **overlays**. This allows you to use a program which is actually larger than your computer's memory size. PaperClip III does this by dividing the program into several sections. When you start up PaperClip III the main section of the program is loaded directly and permanently into your computer's memory; the "overlays" are loaded only as they are needed.

Each overlay provides several enhancements and extensions to the power of the central PaperClip III program. However, because there is only room for a single overlay within your computer at a given time. PaperClip III will sometimes need to fetch the required overlay from the program disk. This is why PaperClip III will occasionally access the disk drive when you use some of the program's advanced features.

The overlays provided on the PaperClip III disk furnish the following functions to PaperClip III:

- Spelling checker
- Printer and video output
- Telecommunications
- Printer file and character set editors
- General setup and configuration
- Utility

PaperClip III may not always have the correct overlay available in memory. In many cases PaperClip III will automatically fetch the overlay required. However, some commands that require an overlay for their operation will not respond until you specifically fetch that overlay from disk.

If you have removed the PaperClip III program disk from the disk drive, and PaperClip III needs to fetch an overlay in order to carry out the operation you have selected, it will prompt you to insert your system disk. If this happens, insert the PaperClip III program disk and press **RETURN**.

Note: If you attempt to load an overlay using **CONTROL** L, the system will lock up. If you are using a RAM expansion, these overlays will remain in memory once loaded. To view a directory of these overlays, enter **F1F1F1F1**, and select the desired overlay from this list.

A Note To Users of Previous Versions of PaperClip

Most of the improvements in PaperClip III have been made in ways that retain compatibility with existing text files. PaperClip III can import and use text files created with previous versions without difficulty, although there are minor differences that require attention to ensure that the printed results are consistent with those of older programs.

If, for example, you made extensive use of the margin, header or footer capabilities of PaperClip, you should check the sections of this manual concerning those features, because a number of enhancements and adjustments have been made to them. If you designed your own printer file, rather than using one of those supplied with the PaperClip program, you will need to convert it before using it with PaperClip III. Refer to the sections on printer files for details.

Finally, PaperClip III, unlike previous releases, has a number of the more common commands available in several menus. Using the menus allows PaperClip III to automatically fetch overlays and use default settings. Unless you need to specify an unusual option, use the menus to activate the features listed in them.





SCREEN DISPLAY

MENUS

PaperClip III uses several menus to adjust, set, and control many functions. A menu is displayed by pressing the appropriate key. **Once visible, it can be removed by pressing either the same key used to invoke it or **CONTROL**.**

A menu consists of a list of options surrounded by a thick border. Each entry is named on the left side, and, when applicable, the current setting is shown to the right. A highlight bar will appear on one of the menu entries. This bar can be moved up and down with the cursor key(s) **↑** **↓** and **↑**). **[Keys enclosed in parentheses pertain to C128 only.]**

Once the highlighting bar has been moved to the desired entry, that function can be selected, or that setting can be altered.

Note: For menu entries which select from one of several pre-set settings, use  (or  and ) to cycle through those available. If the menu entry causes some action, pressing  will usually initiate that function.

THE MAIN MENU


PaperClip III's Main Menu is accessed by pressing



The upper group of commands are used for basic document handling. You can start creating a new document, load an existing one from disk, save the current text in memory to the disk, and view the disk directory listing all the files stored on the disk.

A number of frequently used commands are also available here. These include searching through text, replacing text, previewing and printing your work, checking the spelling, and invoking the telecommunications system. The lower part of the menu lets you define a number of basic parameters that PaperClip III will use when previewing and printing your document.

Finally, you can preserve your custom arrangement on disk. PaperClip III will automatically configure itself the next time you start it up.

To select any of the commands in the Menu, move the highlight bar up and down using the  key.

When the selection you want is highlighted, press .

New Document

This command will confirm your request, then erase any text currently in memory, and position the cursor ready to start typing.

Be sure to save any text currently in memory before invoking this command.

Load Document

Prompts for the name of the text file on disk you wish to retrieve, erases any text currently in memory, then loads the document from disk, ready for use. The file name must be typed **exactly** as it appears in the Disk Directory.

Save Document

Prompts for or confirms the file name to use when storing the document on disk, then the disk drive number. The document is then stored on the disk.

Disk Directory

Immediately displays the directory of the disk in drive 0 on the screen. You can load a file from the Directory by pressing **[RETURN]** when the first letter of the desired file name is highlighted. The screen then prompts for confirmation. Press **[RETURN]**. To clear the directory and work with the document again, press **[CLR HOME]** until the Directory disappears.

Search Text

Prompts for the word to search for, then scans the document in memory, stopping at the first occurrence in text which matches the search criterion. Press **[CONTROL]**, then press H to find the next occurrence.

Search and Replace Text

Prompts for the word to search for, then the replacement to be used if any matches are found. It then scans the document in memory, pausing at each occurrence which matches the search criterion. For each match found, you may substitute the corresponding replacement by responding Y, or leave it unaltered by responding N.

Print Document

Immediately prints one copy of the entire document on your printer.

Video Preview

Immediately displays the preview of the entire document on your monitor.

Check Spelling

Invokes the spelling checker overlay, fetching it from disk if necessary. The entire document is scanned, comparing every word with the dictionary. Each word found in the document which did not match any of the dictionary entries is then displayed. You may then correct the spelling, ignore the word, or add it to the dictionary for future reference. See the section **Spelling Checker**, below.

Telecommunications

Invokes the telecommunications overlay fetching it from disk if the overlay was not already present. The contents of text are preserved, and may be accessed while communicating.

Left Margin (lm) Right Margin (rm) Justification (ju) Paging (pg) Top Margin (tm)

These entries define some of the "defaults," or basic assumptions, that PaperClip III uses when printing your documents. These settings can be redefined or overridden by directives within the text being printed.

Printer File

This option shows the name of the currently loaded printer file. After choosing this option you may select a different printer file to be used by entering the correct file name. If you get the message File not found, view the Disk Directory to ensure the correct use of upper/lower cases etc.

Character Set

This entry displays the file name of the character set that PaperClip III is currently using for both text editing and video preview. Pressing **RETURN** here will prompt for the file name of a replacement character set.

Save Configuration to Disk

Once you have arranged PaperClip III's options the way you like them, select this command to store the settings in a special 'configuration' file on disk. When PaperClip III starts up, it will employ the settings defined in the file.

Load Configuration from Disk

In addition to the startup configuration file, you may save alternate configurations using other file names. When you want to utilize the settings stored in one of these files, use this selection. It will prompt for the file name, then retrieve the new settings. **Note:** If you attempt to load a fictitious file name, it will be loaded **only** if the pciii configuration is on disk. If it is not on disk a "drive not ready" message will appear.

To remove the **Main Menu** form on your screen, press

F7 or **CONTROL**

SCREEN OPTIONS MENU

F1 displays the Screen Options menu.

The **Screen Options** menu lets you change the screen color of text, background, and border; and the colors of various printing options (such as underline or boldface) displayed during video output.

Note to C64 users: With the Commodore 64, the menu will not appear unless the "setup64" overlay has been loaded. A message to that effect will appear instead. To load **-setup 64**, place the PaperClip III program disk into the disk drive and press **RETURN**.

COLOR

Cycle through the 16 available colors using **F3**.

PaperClip III will not let you select the same color for both background and text — if it did, you wouldn't be able to see what you were doing.

You may select the colors displayed during video preview. While this is really up to personal taste, we find that selecting light grey for regular text, and white for boldface is a good basic setting. Generally, use brighter colors for the boldface, and darker colors for italics, etc.

Note: Do not set print enhancement colors to background color.

RGB VIDEO OUTPUT

Note to C128 users only

The RGB (80 column) display on the Commodore 128 computer can display either 25 or 50 lines of text on the screen at once. The 50 line display flickers slightly, and therefore is used only during video preview. It allows you to preview most of the text on a standard display without scrolling.

The flicker is not harmful to the monitor or computer, and can often be reduced by lowering the brightness setting on the display.

Note: When your monitor is set for 80 columns, do not set a line length for less than 80.

CHANGING LINE LENGTH

Note: Save your text before doing this. Changing the line length will erase all the text in memory.

Since PaperClip III is a post-formatting word-processor, it is not necessary to have the editing width the same as the printing width. When working with tables and charts which will be printed wider than the screen width (40 or 80 characters), editing is much easier when the line length matches the printing width.

Remember, the line length during editing does not affect printing. Changing the line length simply makes editing wide charts and tables easier. The editing line length can be set from the screen width up to a maximum of 250.

For instance, if you want to create a chart which will be 120 characters wide when printed, you might set the line length to 125. Characters on the screen will appear the same size, but as the cursor moves toward the right edge the text will 'scroll' across the screen horizontally.

To change the line length, type

CONTROL, then enter **SHIFT** L **RETURN**.

PaperClip III will ask

New line length?

Enter the new line length and press **RETURN**.

PaperClip III asks:

Are you sure?

Press

Y **RETURN** to accept the new setting.

When you save a text file, the line length setting is stored with it. If you save your text with a line length of 125, PaperClip III will adjust to that line length when the text file is loaded in.

You may need to change the editing line length of an existing text file. For instance, you may discover that you need to include several additional columns in a table you've been working on. Here's how to change the line length:

First, save the text on disk by pressing

CONTROL, then enter S

or by selecting the **Save Document** option from the Main Menu.

Make sure you have saved the text. Then change the line length to the new size needed. Press **CONTROL**, then enter **SHIFT** L **RETURN**.

Finally, merge the text from disk into PaperClip III with the append function. Press

CONTROL, then enter A

Enter the name of your file when prompted to do so and PaperClip III will load the text in, fitting it into the current line length.

Remember, make sure the text has been saved on disk, then set the new line length. Finally, bring the text in with the append function. This technique can be used to change the line length of both new and existing documents.

If you switch from using an 80-column monitor to a 40-column one, you will find that text saved while using the 80-column display will still have a line length of 80 when loaded while using the 40-column display. If you load text created with a 40-column line length while using an 80-column display, PaperClip III will automatically convert the text to a line length of 80.

CHARACTER SETS

When PaperClip III starts up, it will try to load the character set specified by the **pciil configure** file. If it can't find the configuration file, or the character set is missing, or there isn't an alternate character set specified, PaperClip III will use the Commodore 64's (or 128's) built-in character set.

The PaperClip III disk contains an alternate character set. The **English/French** character set is specified in the **pciil configure** file shipped with PaperClip III, as the alternate set to load at start up.

To load an alternate character set, press

F7

to display the **Main** menu

Move the highlight bar to **Character Set** and press

RETURN

Type the character set file name you want and press

RETURN

PaperClip III will load the specified character set from disk, and use it to display the text. If you have used any multilingual or special formatting characters (such as underline, boldface, superscript), these symbols will be displayed correctly.

CHARACTER SETS — SETTING THE START-UP DEFAULT

Note to C128 users: There is only enough room to save one character set on disk, so you must scratch the English/French character set if you want to make an alternate set.

C64 users can make an alternate character set the default on start up. The character set must be on the same disk you use to start up PaperClip III. Load the character set you want to make the default, then invoke the **Main** menu by pressing

F7

Move the highlight bar to **Save Configuration to Disk**, press

RETURN.

PaperClip III will prompt with the file name **pciii configure** — this is the name of the configuration file PaperClip III looks for when it starts up. If you save a configuration with a different name, it won't be referred to automatically at start up. To save the current configuration, including the character set you have loaded, press

RETURN.

Enter the drive number where your PaperClip III disk is, then press

RETURN.

For more information on the configuration file, see the section above named "Saving Your Printer File To Disk."

BASIC EDITING

SPECIAL KEYS

Due to the differences between the Commodore 64 and Commodore 128 computer keyboards, some keys have different functions, depending on the computer you are using. If only one key, or sequence of keys is shown, it applies equally to both computers. Where there is a difference, the Commodore 128 key sequence will appear below the Commodore 64 key(s). If any feature is not functioning, make sure your **LOCK** and **NUM** are off.

CONTROL

Pressed once, it switches to Control mode. Pressed again, it cancels Control mode. If a command has been started, pressing **CONTROL** will cancel it.

In some cases **CONTROL** will act differently; those cases are noted where they occur.

← (C64)

ESC (C128)

Pressed before entering an embedded special emphasis character, or a multilingual key, it tells PaperClip III to interpret the next keystroke differently. Pressing **←** (or **ESC**) or **CONTROL** while PaperClip III is waiting for the next key, cancels it.

RETURN

Indicates the end of a paragraph or command.



Erases text on current line to the right of the cursor during editing.



Switches between the current overlay and Editing mode, for example, **Spelling checker**, **Telecommunications**, or **Printer and Video Output**.



Displays the **Screen Options** menu.



Displays the **File Options** menu.



Displays **Printer File** menu (-setup 64 or -setup 128 must be loaded)



Cycles through the video output widths.



Inserts one space to the right of the cursor.



Deletes the character to the left of the cursor.



(The key above **CONTROL**) Deletes the character the cursor is on.

When answering questions for a command on the prompt line...



Screen reads 16 characters from the cursor position in text.



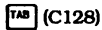
Displays the response used previously.



Erases the current response.

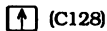


Moves the cursor to the left end.

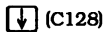


Re-displays default prompt.

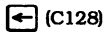
Moving around in text



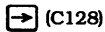
Moves the cursor upward in text.



















Moves the cursor downward in text.






Moves the cursor to the left in text.



Moves the cursor to the right in text.





	Moves the cursor to the right in text.
	Moves the cursor to the left in text.
	Moves the cursor upward in text.
	Moves the cursor downward in text.
	Moves the cursor rapidly downward in text.
	Moves the cursor rapidly upward in text.
 (C128)	Moves the cursor rapidly upward in text.
 (C128)	Moves the cursor rapidly downward in text.
	Moves the cursor 22 lines down in text.
	Moves the cursor 22 lines up in text.
	Switches word wrap on & off.
	Moves the cursor to the top left of the screen. Pressed again it jumps to the top of text.
	Moves the cursor to the bottom of text.
	Steps to the beginning of the next line without altering text.
 (C128)	Sets a bookmark at the current line. Two bookmarks can be set.
 (C128)	Immediately moves to one of the bookmarks. Press again to move to the alternate bookmark.

Tabs

	Sets or releases a tab stop at the current column.
	Sets or releases a numeric tab at the current column.
	Clears all tab stops, both regular and numeric.

 (C64)
 (C128)

Moves the cursor to the next tab stop.

  (C64)
  (C128)

Skips to the next numeric tab, by-passing regular tabs.

TABS

Tabs quickly move the cursor to specific column positions, often while entering information in the form of a chart or table. Tab positions are shown in the Tab Line, the thin line across the very top of the screen. A tab can be set in any column position.

PaperClip III provides two types of tabs. Regular tabs are marked by a small block symbol in the tab line at the appropriate column. Numeric tabs are indicated by a reverse video N. It is possible to set both tab types at the same column position.

REGULAR TABS

Regular tabs are similar to those of a typewriter. To set a regular tab, move the cursor to the column position you want to tab to later and press

A small block symbol will appear in the Tab Line at the top edge of the screen. This marks the tab position. Regular tabs can be set in any column position, with the maximum number of tabs determined by the line length.

To move the cursor to a tab stop, press

 (C64) or  (C128)

The cursor will jump to the next tab stop to the right. If there are no tabs set to the right, the cursor will move to the leftmost tab on the next line down. After moving the cursor to the tab position, PaperClip III will act as if you had used the cursor keys to move the cursor there.




To remove a single regular tab, move the cursor to the tab stop, using the

 (or ) key or cursor keys, then press

The small block marker will disappear from the Tab Line.

To remove all the tab stops currently set, press

, then enter  

This command will remove all tabs, both regular and numeric.

NUMERIC TABS

Numeric tabs are designed to make the entry of numbers into tables easier. Numeric tabs have two important differences from regular tabs. The first is called **numeric mode**. The second difference is that numeric tabs move after they have been set.

To set a numeric tab, position the cursor in the desired column, then press

CONTROL and enter N

A reverse video N will appear in the Tab Line. PaperClip III will switch into numeric mode; the status line will show ***NMR***. PaperClip III also switches to numeric mode when the cursor is tabbed to a numeric tab stop.

To use a numeric tab, press

RUN STOP (or **TAB** for C128)

Depending on the characters you type next, PaperClip III will do one of two things. If you enter numeric characters, they will be inserted to the *left* of the cursor position, and the cursor will stay put. If you type a non-numeric character, PaperClip III will quit numeric mode and enter the text as normal. Numeric characters are specified as:

1 2 3 4 5 6 7 8 9 0 + - (, \$, and shifted **space bar**

Numbers entered into a chart using numeric tabs will be lined up with the decimal points in the column where the numeric tab is set.

In detail, here is how numeric tabs are used. When the cursor moves to a numeric tab PaperClip III switches to numeric mode. This is indicated by ***NMR*** on the Status Line. Any numeric characters typed will be pushed to the left of the cursor, lining up the decimal points on successive lines. When the decimal point (the period key) is pressed, PaperClip III recognizes it as non-numeric and cancels numeric mode. The decimal point is entered at the cursor position, and the cursor moves to the right. Further text is entered as usual, until you tab to a numeric tab stop again. Up to 16 numeric tabs can be set.

To remove a numeric tab, move the cursor to the column where the tab is set. Then press

CONTROL , and enter N

The numeric tab at that position will be removed.

As an example, consider the following sequence.

Clear the text area, then move the cursor to column 10. Press

CONTROL, and enter N

A numeric tab will be set at column 10. Enter the number

123.

Notice that the ***NMR*** indicator disappeared when you pressed the . (period) key. Now enter the rest of the number

45 **RETURN**

Now we will enter the next number in the table. Press

RUN STOP 67.890 **RETURN** (C64) or **TAB** 67.890 **RETURN** (C128)

Notice how the two decimal points are in the same column position.

NUMERIC TABS — DYNAMIC POSITIONING


Numeric tabs take into account non-printing formatting symbols embedded in text: such as the begin underline symbol. If you have a begin underline symbol (**⏎**) in column 1 and a regular tab in column 5, when you pressed **RUN STOP** or **TAB** the cursor would move to column 5. Since there are only four real spaces to the left of the cursor, the text entered at that tab will print four spaces from the left margin. The text on the next line entered without the formatting symbol using the same tab stop will print five spaces from the margin. In general, embedded formatting symbols upset the printed alignment of tables created with regular tabs.

If you use a numeric tab instead, when you press **RUN STOP** or **TAB** the cursor will jump to column 6 in the line with the begin underline symbol. Although this doesn't seem to line up properly on your screen, it will line up properly on your printer since the begin underline symbol doesn't print. No matter how many non-printing formatting symbols appear in the line, the numeric tab will always position itself so that the text will be properly tabbed on the printed page.


When setting numeric tabs, it is recommended that the cursor be positioned on a line free of formatting symbols. If these symbols do appear to the left of the cursor when a numeric tab is being set, it may not position itself in exactly the column you expect it to.

To move the cursor directly to the next numeric tab, ignoring any regular tabs, use


 (C64) or   (C128)

Note: If you scroll off the edge of the screen, all numeric tabs will disappear. They will reappear when you press .

CAPS LOCK

To enter text using capital letters only, C64 users must press and release both SHIFT keys simultaneously. C128 users press the  key. (The key will remain depressed.)

The letters ***LOK*** will appear on the Status Line. Any letter keys you type will be capitalized, while other characters, such as numbers and punctuation, will not.

To stop using Caps Lock, press both shift keys simultaneously (C128 users press ) again. The key will rise to the original position, and the ***LOK*** message will vanish from the status line.

INSERT MODE

  turns Insert mode **on and off**

When it starts up, PaperClip III is operating in **Insert** mode, and the indicator ***INS*** is displayed in the status line. Text typed in will be inserted, the old text being pushed to the right, ahead of the cursor.

Insert mode can be turned off. When you do this, new text entered will **overwrite** the existing text, replacing it.


INS will appear on the Status Line when insert mode is active.

INSERT SINGLE BLANK LINE

To insert a blank line at the cursor position, press

 , then enter +

PaperClip III will insert a blank line, and move the text under the cursor down one line. The blank line will have a **return** marker in column 1.

Continue pressing + until you have inserted the line(s) you wish. Press  to exit the command.

INSERT MULTIPLE BLANK LINES

To insert a large or specific number of lines quickly, press

 , and enter |

PaperClip III will ask

Number of lines to insert?

Enter the desired quantity, up to 255 on the C128 and about 200 on the C64 (due to limited text memory available), then press

RETURN

The specified number of blank lines will be inserted above the cursor line, pushing the existing text down. The new lines will have **return** markers in column 1.

DELETE SINGLE LINES

To delete the line the cursor is currently resting on,

press **CONTROL**, then enter -

The line the cursor was on will be deleted, and the text below will move up to fill in.

When you are finished deleting lines, press

CONTROL (continue pressing - to delete more lines).

Note: Be careful using this command, there is no **Are you sure?** guarding against accidental deletion.

To delete an area see **Delete A Range**, below.

ERASE TEXT

To erase all text, from the current cursor position to the end of text, press

CONTROL, then enter E **RETURN**

PaperClip III will ask

Are you sure?

Press

Y **RETURN**

to erase all the text from the bottom up to and including the character the cursor was on.

BOOKMARKS (Available for the Commodore 128 only)
PaperClip III provides two bookmarks. Each can be set to any line in text.
To set a bookmark on the current line, press



If two bookmarks have already been set, the oldest will be discarded. In effect, you can not delete bookmarks; you can only replace them.

To move the cursor to a bookmark, press



The cursor will jump to one of the bookmarks. Pressing



again will move the cursor to the other bookmark. Further presses will alternate between the two bookmarks.

WORD WRAP

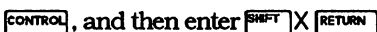
PaperClip III can edit text with word wrap turned on or off. To toggle word wrap on or off, press



If you are working with word wrap off, and have very few free lines left after the end of your text, save the text before switching word wrap on. Text expands when wrapped. If PaperClip III runs out of room while wrapping, it will leave the last part of the text unwrapped. If this happens, switch word wrap off, reload the text, and reduce its size before turning word wrap on again.

QUITTING PaperClip III (Only for Commodore 128)

To stop using PaperClip III, quit the program, and discard all text in memory, press



PaperClip III will ask

Are you sure?

Answer



to continue using PaperClip III without altering text. Press

Y 

to completely reset the Commodore 128 computer. PaperClip III will remove itself from memory, then initiate a normal reset, just as if you had turned the power on. **Make sure you've saved any text in memory before quitting.**


RANGES

A range is a selected group of consecutive characters, and can be as little as a single character, or span many paragraphs. Once set, a range can be moved, copied, or deleted.

To set a range, move the cursor to the first character of text to be included in the range, then press



 , then enter R

The cursor position will be highlighted. To further define the range, use the  (or ) key.

Press  (or ) to highlight a character.

Press **space bar** to highlight a word.

Press . (period) to highlight a sentence.

Press  (or ) to highlight a line.

If you go too far, use the   and   (or  and ) keys to "unmark text."

While you are setting the range, pressing an unshifted key will extend the highlight to include the next occurrence in text of that character, either upper or lower case.

Once you highlight the exact section you want as the range, press



PaperClip III will make note of exactly where the range is. If you insert extra lines above, or edit the text, PaperClip III will keep track of it.

Note: Switching word wrap on and off will affect the text within the range.

To quit without setting a range, press



COPYING A RANGE

A copy of a range can be made with the range copy function. Position the cursor on the line where the new copy is to be placed, then press

CONTROL, and enter C

PaperClip III will ask

Number of copies?

You can make up to 255 copies of the original range at a time. [C64 has limited memory so it is possible to get an "out of text memory" message if you attempt a large number of copies.]

Enter the number of copies, then press

RETURN

For a single copy, just pressing **RETURN** will use the default of 1.

The specified number of copies will be inserted at the cursor location, pushing the text after the cursor down (including the text following the cursor on the same line). The original range will not be altered or removed. Once set, the range can be copied again and again, until another range function is used.

Note: You cannot copy a range into itself. Position the cursor outside of the original range.

MOVING A RANGE

To move a range from its original location, and insert it at a new one, use the move range command. Position the cursor at the spot where you want the first character of the moved range to appear, then press

CONTROL, and enter M **RETURN**

The range will be removed from its original location, and inserted at the cursor position. The character the cursor was on will be pushed to the right as the range is moved.

Note: You cannot move a range into itself. The cursor must not be positioned on any character of the set range when using the move range command.

DELETING A RANGE

To delete a range quickly, use the delete range command. This command, unlike other range functions, sets and deletes the range in one operation.

To delete a range, position the cursor over the first character of the range, then press

CONTROL, and enter D

The character the cursor was on will be highlighted. To further define the phrase to be deleted, use the cursor keys **←** **→** (or **↓** **↑**).

While you are selecting the range to be deleted, pressing an unshifted key will extend the highlight to include the next occurrence in text of that character, either upper or lower case. (Character, word, sentence and line marking all function as they do in Setting a Range.)

If you highlight too much, use the **SHIFT** **←** and **SHIFT** **→** (or **↑** and **↓**) keys until the range is defined exactly.

To quit without deleting the range, press

CONTROL

Once you have the range highlighted properly, press **RETURN**.

Note: The range will be deleted immediately. Be careful with this command, there isn't an "Are you sure?" safeguard.

Note: This is the only range function which doesn't use **CONTROL R to set the range first.**

CHANGING CASE OF A RANGE

Once a range has been defined with **CONTROL** and R, you may set all the characters in the range to capitals or lowercase letters. To set all text in a range to one case, press

CONTROL, and then enter **SHIFT** K

The prompt

Change to upper case?

will appear. If you want all the text to be converted to small letters, press

N **RETURN**

If the range is to be forced to all capital letters, press

Y **RETURN**

To quit without changing case, press

CONTROL

DEFINING AN INSTANT PHRASE

Often during the writing of a document, several phrases will recur many times. To save typing, PaperClip III allows up to 52 instant phrases to be defined. Each of these phrases is associated with a specific alphabetic key.

Instant phrases can be a maximum of one screen line long, and must end with a **return** marker. The line above must also end with a **return** marker.

To define an instant phrase, press

E

The ✓ symbol will appear. Now press the key you want to assign the phrase to. You may select from any of the 26 lowercase letter keys, or one of the 26 uppercase (shifted) letter keys. To assign a phrase to the T key, press

t=

Now type in the text you want to include in the instant phrase. Almost any text which can be typed is allowable. For instance, you could assign an instant phrase for a ✓ command, or a person's name. To assign the text

This is an instant phrase

to the t key, type

This is an instant phrase **RETURN**

The entire command should look like this...

✓t=**This is an instant phrase**+

In general, an instant phrase is defined by entering a ✓ followed by the key to be defined (shifted or un-shifted), the = key, then the actual text of the phrase followed by **RETURN**

Here are some more examples of instant phrases...





✓m=✓lm+10:rm-10+


✓Y=Yours truly, +

✓b=Beta Beta, Los Angeles, CA+

USING AN INSTANT PHRASE

Once you have defined an instant phrase, it can be entered into text easily. Position the cursor where you want the instant phrase to appear, then press

 (or  [The  key is right above the  key.]

The prompt, "Key?" will appear on the Status Line. Press the key you have defined. If the instant phrase key is uppercase, press  while pressing the assigned key to invoke it.

The defined instant phrase will be entered into text just as if you had typed it. If *INS* is turned on, the text will be inserted. If insert mode is turned off, the instant phrase will over-type existing text to the right, just as if you had typed it in.

For instance, if you have an instant phrase defined as

✓d=Dear Sirs, +

...then pressing

 D (or  D)



would enter the text **Dear Sirs**, into text.

When you invoke a defined phrase, PaperClip III scans your text from line 1 down, looking for a phrase definition matching the key you pressed. If it finds no matches, PaperClip III will continue to flash the cursor without an error message.

Note: If the same instant phrase key has been defined several times, only the first occurrence will be used.

COLUMNS

PaperClip III provides a variety of powerful commands to assist in the creation of columns, charts and tables. The ability to manipulate the columns after they have been entered provides enormous flexibility.

When using PaperClip III's column functions, set the editing line length at least equal to the printed width of the table. If you are using a printed page wider than your screen width, use the  command with  L to match the editing line length to the printing width. Many of the column functions cannot operate properly if each printed line occupies more than one line on the screen.

SETTING A COLUMN

Before you can use any of the column editing functions, you must define the area to be included in the column. A column can be set over any rectangular area of text. The text must be set **before** using any of the column editing commands. All column functions require that each line included in the column end with a **return** marker. Each line must have a **return** marker to prevent functions such as justification and word wrap from disturbing the printed alignment of columns.

Position the cursor in the upper left corner of the area to be included in the column. Now, set the column by pressing

CONTROL, and then entering **SHIFT** **C** **RETURN**

The character the cursor is on will become highlighted. Use the **RIGHT** and **LEFT** keys to expand the highlighting. Notice that the column area is always rectangular. **Return** markers can be included in the column. Pressing **S** will extend the highlighting to the rightmost edge of the screen. If you over extend the highlighting, use the **SHIFT** **RIGHT** and **SHIFT** **LEFT** keys to reduce the size. Be sure to highlight all text and spaces that define your column. Once the area is correctly highlighted, press

RETURN

PaperClip III will record the column definition and remove the highlighting.

Note: Once a column is set you should refrain from heavily editing the text around it until after you have completed the column operations you intend to do. PaperClip III can keep track of the column settings under most conditions, but some editing functions can cause the column definition to become incorrect.

MOVING A COLUMN

In a table consisting of several vertical columns, the move function can be used to rearrange the columns horizontally. Each line of the table must end with a **return** marker. Do not use move to transfer columns of text to another area of the text, only to move columns around within the table. Define the area to be moved with

CONTROL, followed by **SHIFT** **C** **RETURN**

Then position the cursor where the upper left corner of the column is to be moved. Press

CONTROL, and then enter **SHIFT** **M** **RETURN**

The column will be inserted at the new location, and deleted from the original position. This function operates in a similar manner to the range move function — inserting, then deleting for each line in the column. For this reason it is important that there be **return** markers on each line, so that the inserting and deleting on one line will not disrupt the text in the lines below.

Generally, move is only used to rearrange columns horizontally in a table, where the new position is on the same line as the original.

For example, move could be used to change the table below so that the first names are in the second column, rather than the first.

John	Doe	Anywhere	+
Sam	Spade	Nowhere	+
Fred	Ferdinand	Somewhere	+

To exchange the first and last name columns, you would set the column over the first names, starting with the cursor on the **J** of John, extended to include the space character directly in front of the **F** in Ferdinand. After setting the column, place the cursor on the **A** in Anywhere, then invoke the move command. The column containing first names will be inserted after the last names column, and the original will be deleted. Now the table will look like this...

Doe	John	Anywhere	+
Spade	Sam	Nowhere	+
Ferdinand	Fred	Somewhere	+

SHIFTING A COLUMN

Unlike moving a column, shift can be used to manipulate any block of text. It is not necessary to have **return** markers at the end of each line. Shift closely corresponds to the 'cut and paste' method of laying out tables using a sharp knife and glue to rearrange columns. When you shift a column, it is placed at the new position on top of the text already there, replacing it. The original column is erased, being replaced with blanks.

Define the area to be shifted by pressing

CONTROL, and then entering **SHIFT C RETURN**

Position the cursor where the upper left corner of the column is to be placed, and press

CONTROL, and then enter **SHIFT S RETURN**

The column will be placed in the new location, replacing the existing text. The original column will be filled with spaces.

A useful technique when editing tables is to create the table at the end of text, where there is plenty of room to maneuver. If you need to temporarily put a column aside, use shift to place it further down, below the end of text. Later on, you can pick it up and place it where it belongs. Once the table is completed, use the range move function to place it in the correct position in your document.

REPEAT A COLUMN

Once you have set a column, you may place a duplicate of it anywhere in text. This can be very useful for filling in repetitive tables where many of the columns contain very similar information. Repeat operates much like shift, except that the original is not erased.

To duplicate a column, define the column with

CONTROL, followed by **SHIFT** **C** **RETURN**

Position the cursor where the upper left corner of the copy is to be placed, and press

CONTROL, then enter **SHIFT** **R** **RETURN**

The copy will be placed in the new location, replacing any existing text. The original column will be left unaltered. If you want to make an additional copy of the column, you must reset the column.

Be sure to open up a space for the new column, since the copy will replace existing text with the copied column. If you place the repeated column over the original, the copy will overwrite the original column.

INSERTING SPACE IN FRONT OF A COLUMN

When you are constructing a chart you may discover that you need to open up space within the chart for another column of data. If you have sufficient room to the right of the current chart, you can expand with the insert function.

Set a column over the text you want to push to the right, then press

CONTROL, and enter **SHIFT** **I**

PaperClip III will ask

Number of spaces to insert?

You may enter any number up to 255. Enter the amount of space you need, and press

RETURN

If you enter a number larger than the amount of free space to the right, each line will be pushed to the right edge. This can be a handy way to right align the text in a column.

You can then free space to the right by saving the document, extending the editing line length, then appending the text back in. PaperClip III will fit the text to the wider setting, and provide you with the room you need to expand your chart.

DELETING A COLUMN

You can remove a column, closing up the space it occupied. First define the area to be deleted with

CONTROL, followed by **SHIFT** C **RETURN**

Once set, delete the column with

CONTROL, then enter **SHIFT** D **RETURN**

The column will be deleted and any text to the right will be drawn back to fill in the space.

Note: This function requires that each line end with a return marker in order to operate correctly.

ERASING A COLUMN

If you want to replace a column with blank spaces, use the erase function. Erase simply replaces the text in the defined column with spaces.

Specify the area to be erased with

CONTROL, followed by **SHIFT** C **RETURN**

Once set, erase the column with

CONTROL, and then enter **SHIFT** E **RETURN**

After you confirm the prompt "Are you Sure?" the defined column area will be replaced with space characters.

SORTING A COLUMN

PaperClip III has the ability to sort the contents of a column, arranging the data in either ascending or descending order. This is one of the most powerful column functions. Up to 16 fields may be defined, with complete control of the sorting sequence.

Unlike the other column functions, sorting requires that the entire area to be sorted be included in the column definition. If there are three fields

in each line of the column, but you only intend to sort by the first entry in each line, all three entries must be included in the column before sorting. If you omit part of the table from the column, PaperClip III will not transfer that text when re-arranging the data according to the sort.

For example, suppose you had the following table in your text...

Chuck Wagon+
Terry Dactyl+
Sal Amander+
Perry Scope+

To sort this, you would set the column so that it included the area from the **C** in Chuck down to the **P** in Perry, and over to the right far enough to include all the **return** markers. You may include all the space to the right of the **return** markers by pressing the **S** key while setting the column. This ensures that all the text to be sorted will be included in the column.

Once you have set the column, you can sort it. To start sorting the column, press

CONTROL, and then enter **SHIFT** **A** **RETURN**

You will be asked a number of questions before the sort begins.

Field number?

PaperClip III looks at each line of the column as a series of **fields** and **separators**.

In the example, the fields are two words, separated by a space. Fields are numbered starting from the left edge of the screen. If we want to sort this list by last name, we would tell PaperClip III to sort by the **second** field.

To find field two, the program looks to the right, looking for the first field separator. This is often the space character (space is the default separator). Everything up to the first separator is considered part of field one. After the first separator is the text for field two.

Using field numbers you control which fields PaperClip III will compare when performing the sort. If you sort a list of first and last names by field number 2, the column will be sorted by last names.

More?

Often, you will have to sort the list by more than one field. In a list of names, many could have the same last name. You need to sort by last name, and where they are the same, sort by first name as well. To sort by more than one field, answer

Y

to this question. PaperClip III will then ask you for the next field. Remember, these fields will only be sorted when all the fields compared prior are the same. Up to 16 fields may be defined for the sort.

When you have defined all the fields you want to sort by, press

N

Ascending order?

You can choose ascending or descending order for your sort. Ascending order will place the smaller values (a, b, c) at the top of the list. If you answer

N

the column will be sorted with the smallest values at the bottom.

Ignore leading spaces in fields?

When working with columns, the area between fields is often filled with spaces. If the sort separators are spaces, and the column to be sorted has spaces within the actual fields, PaperClip III won't know which spaces are separating actual fields, and which are the extra spaces between the fields.

PaperClip III can be instructed to skip over extra spaces by answering

Y

As PaperClip III scans across a row in the column, it will look for the next separator as usual. Once the next separator is found, any further spaces, up to the next non-space character, will be ignored. This allows you to use the space character as the field separator, even when the column data itself contains many extra spaces.

To acknowledge every space character when sorting, answer

N

PaperClip III will sort the column. Each item in the first field is compared with the corresponding field in the other rows of the column. If numeric fields are found, they will be compared as numeric values. A field containing **1.23** will be evaluated as being less than a field containing **12**. When fields containing numbers occur in the same column position as fields containing text, or both text and numbers, the numeric field is always considered to be smaller in value.

For example, the column...

5.23
fred
teen3
52

sorted into ascending order would result in

5.23
52
fred
teen3

Numeric comparisons are made only if the fields being compared both contain numeric data, fields containing text with the number will be compared as text strings, not numeric values.

FIELD SEPARATORS

In the first sorting example, the list was very simple, consisting of two words separated with a single space. For more complex tables, PaperClip III provides two functions to accurately define and set the sorting separators. Consider this table...

Basic Basic	21.25	29.95+
Computers	5.25	9.95+
The Joy of Word Processing	18.50	24.95+
Computers and You	4.00	15.95+

Since each line contains a varied number of words and spaces, we must use non-space separators. You can set specific characters as separators.

For this example, we will put specific separator characters in front of each column of numbers. Then, when we sort the column, PaperClip III will be able to correctly determine the start and end of each field.

Move the cursor to the space just to the left of the **2** in 21.25. Press

CONTROL, and enter **SHIFT** **C** **RETURN**

Press

DOWN **()** **()**

until the highlight bar is even with the **4** in 4.00. Press

RETURN

You have set a column one character wide in front of the second field. This is where the first field separator should go.

Now we will fill this thin column with a special character. We can then use this special character as the field separator, instead of the space character. Press

CONTROL, and enter **SHIFT** W

PaperClip will ask

Character with which to fill column?

Press

SHIFT space bar

A thick underline symbol will appear. This is called a hard space character. It is described in more detail later. It prints like a regular space, but we can use it as a field separator. Press

RETURN

After you answer the prompt, PaperClip III will fill the set column with the new character. Now we have a unique symbol defining the boundary between fields one and two.

SETTING THE FIELD SEPARATORS

Before sorting with the new separator, you must tell PaperClip III what the new character is. Press

CONTROL, and enter **SHIFT** Q

PaperClip III will ask

Field separators?

Since PaperClip III can sort up to 16 fields, you must specify the 16 separators. While you may only be using one or two for a given sort, it is recommended that all 16 be defined. The first character is the separator between fields one and two, the next divides fields two and three...

For this example, press

SHIFT space bar

16 times. This will fill the response line with hard space symbols. Press

RETURN

Now that the field separations are properly defined, the table can be sorted. Set a column over the table with

CONTROL, followed by **SHIFT C RETURN**

Be sure to include everything from the **B** in Basic Basic to the **C** in Computers And You and out beyond the **return** markers. Press

RETURN

Now sort the column. Press

CONTROL, and then enter **SHIFT A RETURN**

and follow this procedure:

Field Number? 1 **RETURN**

More? N **RETURN**

Ascending Order? Y **RETURN**

Ignore leading spaces in fields? Y **RETURN**

The table will be sorted into ascending order by title.

Since the end of field one is clearly marked, PaperClip III can correctly sort the two titles beginning with **Computers**.

COLUMN ARITHMETIC

PaperClip III can perform addition and subtraction within columns. This can prove very useful when creating numeric tables which have numerous totals and subtotals.

Negative numbers can be indicated with either a minus sign or a left parenthesis anywhere in the number. PaperClip III will match the style of the result to that of the column. If the numbers in the column use commas and a leading dollar sign, so will the result. If the result is negative, PaperClip will use a minus sign or parentheses in the result, depending on which is used in the column.

Letters and other non-numeric characters found in a column will be ignored. For example, all of these have the same value:

123.45
123.45%
123a.45

\$123.45
12\$3.45

A column that can be added by PaperClip III would be...

147.75
\$100
(12.00)
-15
98,654

This would produce a result of **\$98,874.75**

ADDING A COLUMN

To sum a vertical column of numbers, highlight the column in the usual way by pressing

CONTROL, and entering **SHIFT** **C** **RETURN**

Be sure to include all parts of the number in the column, including dollar signs, and minus signs. If they are not included in the column, PaperClip III won't correctly calculate the result. Only include one vertical set of numbers in the column. PaperClip III cannot add several columns of numbers at once.

After the column has accurately defined the numbers to be added, place the cursor where the decimal point of the result is to be placed. Since most columns of numbers will be entered using numeric tabs, you can use the **RUN STOP** (C64 or **TAB** (C128) key to correctly place the cursor where the decimal point should go. Make sure the result is not placed inside the column being added.

When you have positioned the cursor properly, press

CONTROL, then **SHIFT** **=**

PaperClip III will calculate the result, and display it on the tab line. If you do not want to enter the result into text, press

CONTROL

To have the result transferred into text, press

RETURN

The result will be placed with the decimal point under the cursor.

NUMERIC PRECISION

PaperClip III's math is accurate to 38 decimal digits. If a result requires more than 38 digits, it will cause the **Overflow error** message to appear. Unless you are totalling very long numbers, it is unlikely that you will encounter this error.

SETTING THE DECIMAL POINT

Unless you change it, PaperClip III will calculate and display results with all significant digits. Normally the number of digits to the right of the decimal point corresponds with the values being added. The decimal point floats, positioning itself in the total automatically. This is the start up default setting.

You can specify how many digits are to be displayed to the right of the decimal point, and PaperClip III will either fill in with zeros or round off accordingly.

To set the number of decimal places displayed to a fixed value, press the control key followed by a period.

CONTROL.

PaperClip III will ask

Number of digits?

Enter the number you want. To force the result to be displayed without any fractional part, enter **0**. You can set the number of decimal places displayed in the result from 0 to 38. If you set it to 255, PaperClip III will display results according to the decimal places of the numbers in the column added (floating).

Regardless of the precision specified for the result, all internal calculations are carried out using the full 38 digit accuracy. Only the result is trimmed to fit the number of decimal places specified.

ADDING A ROW

PaperClip III can also be used to sum a horizontal row of numbers. Rather than adding the numbers in a vertical column, PaperClip III calculates the total of the numbers across the top row of the column.

Set the column to include all the numbers in the row you want to add. If you include more than one line in the column, each line in the column will be totalled, with the results for each placed in a column with the decimal points aligned under the cursor.

Position the cursor where the decimal point of the result is to be placed. Make sure the cursor is not placed inside the column being added.

When you have positioned the cursor properly, press

CONTROL, and then enter **SHIFT H RETURN**

After you respond to the prompt "Ignore Leading Spaces in Field?" PaperClip III will calculate the result.

The result will be placed into text, with the decimal point at the cursor position. If several rows were included in the column, each row will have its result placed under the result from the row above, creating a column of results.

Note: Field separators must be normal (unshifted) spaces. If you are having problems with horizontal addition, check to make sure that the field separators are defined correctly.

Field separators are set by pressing,

CONTROL , followed by **SHIFT** Q

PaperClip III will ask

Field separators?

Since PaperClip III can add up to 16 numbers in each row, you must specify the 16 characters separating the fields (numbers). While you may only be adding one or two numbers in each row, it is recommended that all 16 separators be defined. The first character is the separator between the first and second numbers, the next divides the second and third...

Separators must be spaces. Press

space bar

16 times, then press

RETURN

SEARCHING TEXT

PaperClip III has the ability to scan text for specific phrases, or text strings. These search strings can be very accurately defined. You may need to check for a specific term, or a person's name, or find a paragraph containing a certain phrase. These tasks are handled with three commands – **Find**, **Hunt**, and **Search & Replace**.

FIND SEARCH STRING

To search text for a specific text string, select the **Search Text** option from the Main Menu or use the command

CONTROL, and F

PaperClip III will ask

Search string?

Enter the text you wish to search for. The search string may be up to 22 characters long.

Once you have entered the search string, press

RETURN

Unless you specify otherwise, PaperClip III will not distinguish between upper and lower case. This allows you to find words which appear both in the middle of sentences and capitalized at the beginning. Searching for **the** will match **the**, **The**, **THE**...

PaperClip III will start from the cursor position, scanning downwards. It will continue until it finds a match or reaches the end of text. When a match is found, the cursor will be placed just after the matched string. You can edit the text if you need to, or press **CONTROL-H** to find the next occurrence.

Note: PaperClip III searches forward from the current cursor position. To be sure of finding all occurrences of your search string, move the cursor to the top of text by pressing **ESC-ESC** before starting the search.

When the end of text is reached, PaperClip III will check for a global link (**✓nx:**) command.

If there isn't one, PaperClip III will conclude the search and the message **Search ended** will appear on the tab line.

If it finds a link, it will ask

Fetch next file?

To continue searching in the next file, press

Y RETURN

Note: This will erase the document currently in memory.






To stop the search without loading the next file, press

N RETURN or **CONTROL**

SPECIAL SEARCH CHARACTERS







Several characters have special meanings when entered in a search string. These allow you to define the search accurately, or find many

similar strings. Each special character is entered into the search string, either taking the place of another character, or modifying the meaning of the one following.

- ✓ Produced by pressing 
Matches the ✓ character in directives.
 - \ Produced by pressing   (C64) or   (C128)
Matches any character, sometimes called a 'wildcard' symbol
Searching for t\e will match **the**, **tbe**, **t4e**, ...
 - ? Matches any alphabetic character
t?e will match **the**, **tbe**, but not **t4e**
 - [Matches strings only at the beginning of a word
The search string **the** would match **then** and **clothe**;
the search string **[the** would match **then** but not **clothe**
 -] Matches strings only at the end of a word
The search string **the]** would match **clothe** but not **then**
- To search for a complete word, bracket it with []
[the] will only match **the**
- ' The character following must match exactly, including case
The ' (single quote) symbol only affects the following character
'the will match **the** but not **The**
To search for a special character, precede it with '
To find the string **ab?** you would specify **ab'?**

If you need to search for a formatting character such as **begin underline** or **end-italics**, press

 (or )

just as you would to enter the same character into text. Then press the appropriate key for that symbol. For example, to find all occurrences of begin italics, enter    (C64) or    (C128).

SEARCH AND REPLACE

A useful feature is the ability to search for a string, and replace some or all occurrences with a different string. This is called search and replace. If you need to change a word or phrase, either in a range or across several documents, this can be a time-saver.

PaperClip III offers two methods of implementing a Search and Replace. In the simpler method the **Search and Replace Text** option is selected from the Main Menu. PaperClip III will ask,

Search string?

Enter the string of characters you want to search for and press **RETURN**

PaperClip III asks

Replace with?

Enter the replacement text and press **RETURN**. PaperClip will search the document. When it finds the search string, it will ask

Replace?

Enter Y or N depending on whether you want to replace the string. Then press **RETURN** and PaperClip III will continue the search.

When it finds no further occurrences, the message

Replace ended

will appear on the Tab Line.

EXTENDED SEARCH AND REPLACE

If you want to exercise additional options available in search and replace, press **CONTROL** and the enter

@

PaperClip III will ask several questions:

Search string?

Enter the search string. Use special search characters where needed. When the search string is entered, press

RETURN

Replace with?

When PaperClip III finds an occurrence of the search string, this is the text that will replace it. Enter the replacement and press

RETURN

Note: Be careful if you use wild card characters in the replace string. The corresponding character in text will not be replaced.

More?

You can define up to five search and replace operations. This is most useful when many changes have to be made to linked documents, but can be used with text in memory as well. Answer

Y

if you want to specify another search and replace pair.

If you have already set up all you need, press

N

Replace all occurrences?

If you answer

N

PaperClip III will display each occurrence where it is found, and wait for you to indicate whether or not it should proceed with the replace operation.

If you press

Y

PaperClip III will automatically replace every occurrence of the search string.

Linked documents?

If you answer

N

PaperClip III will begin searching from the current cursor position in text.

Answer

Y

to do a global search, looking through a series of globally linked files.

Note: Before starting a global search, be sure to save the text in memory first. PaperClip III will load the first global file immediately, erasing any text previously in memory.

If you answered N to global searching, and a range is currently set, PaperClip III will ask

Search and replace in range only?

To search all of text, ignoring the range boundaries, press

N

To search within the range only, press

Y

If you use global search and replace, PaperClip III will ask

Query between documents?

Press

N

File name?

When working with global files, you must tell PaperClip III the file name of the first text file in the chain. Type in the name of the file you want to start searching with and press

Don't forget to save the text in memory first!

PaperClip III will start the search. If you specified a global file, it will be loaded into memory now.

For each of the five possible search strings, PaperClip III will scan the document. If the search is not global, text will be checked from the cursor position to the end of text. When searching within a range, the cursor position is ignored.

When a match is found, it will be replaced, confirming first if you requested querying before replacement. When it reaches the bottom of text, PaperClip III will check for another search string. If you have specified several, it will scan the text again, looking for the new search string.

Note: Whenever the message "Query between documents?" appears, press N, then . PaperClip III will automatically check through **linked documents**.

UNFORMATTING TEXT

Note: This feature available on Commodore 128 only.

Unformat is associated with communications, but is not part of the communications mode. Text captured from remote systems (such as news services, on line help, and electronic mail) is often formatted, each line of text ending with a **return** marker. The unformat command can remove these extra **return** markers, making the text much easier to edit.

In order to do its job, the unformat command makes several assumptions about the form of the text received. It scans down the text, looking for a blank line with only a **return** marker on it. The text up to that point is taken to be a single paragraph. Every **return** marker, save the one on the line above the blank line, is deleted. The text is then re-flowed into a single paragraph.

If the text was created with a blank line between each paragraph, this process results in a document much like the original. Unformat will not properly deal with tables or lists of text, such as addresses. In any case, always save the text before using Unformat.

To unformat text, press

CONTROL, then enter **U** **RETURN**

PaperClip III will ask

Margin for unformatting?

When unformatting the text, **return** markers found to the right of the indicated margin will be stripped out. Those found in a column position less than or equal to this setting will be retained. In most cases, the default value of 1 will work well. Text originally formatted for a printer may appear with a consistent left margin of several spaces. For this type of text, enter a margin value which will include the spaces to the left of each **return** marker.

To remove ALL the **return** markers, regardless of their position, enter

0 **RETURN**

Every **return** marker in the text area selected will be removed, save the very last one. This can be used to connect several paragraphs together. To accept the default setting of 1, press

RETURN

Note: If you receive the message "Unformat in range only?", press N and then press .

PaperClip III will ask

Are you sure?

If you have saved your text, and want PaperClip III to try unformatting the text, answer

Y

To abort without affecting text, press

N

or

SPECIAL PRINTING

Note: All Special Printing features may not be supported by your printer.

PaperClip III provides special commands to control the printed appearance of your text. Underlining, boldface, and italics are available. Text can be superscripted or subscripted, automatically hyphenated, and include multilingual characters. Special print commands can be defined and used anywhere in text.

Print enhancements appear in text as special characters. Each has a specific function, and several can be entered together. The **english/french** character set provided on the PaperClip III disk defines these characters with shapes which remind you of their function.

Each function is entered by pressing (or) followed by the key to initiate that feature. A special symbol will appear to indicate the function. Commands such as underlining have a second symbol to mark where the feature is turned off.

Note: All of these commands are accessed by pressing the on the C64 (the key above) or on the C128. Be sure to press the correct "access key" for your computer. C128 users be advised that in this Special Printing section **only** the C64 key sequence are listed.

During printing, these special symbols will be interpreted, and the printed text will reflect the enhancements defined in the text. The

symbols themselves will not appear. Because they can appear in the midst of text, they are called **embedded** formatting characters. These embedded symbols can appear almost anywhere in text.

UNDERLINING

PaperClip III can underline printed text. During printing, when an underline begin symbol is encountered, all text following will be underlined until the underline off character is reached. Anything from a single character to an entire paragraph may be underlined.

To mark the text which follows as underlined, position the cursor where the underlining is to begin, then press



A symbol indicating underline begin will appear (U). Text following this marker will be underlined until the underline end character is found.

To mark the end of underlining, press



U appears on the screen. The text between the two markers will be underlined when printed.

These markers may be edited just like regular text. You can insert and delete them, search and replace them, and include them in phrases, ranges and columns. Only during printing will they exercise control over the printed appearance of your text.


THE UNDERLINE CHARACTER

There may be times when you need to print an underline without any text. An example would be the place for a signature in a contract. Some printers won't underline spaces, only printable text will be underlined. To get around this problem, PaperClip III has assigned a special underline character. Technically, this character is part of the multilingual group, but in practice it is usually used for entering underline characters.

To enter an underline character, press



A small underline symbol will appear. This will print as a single underline character. The printer will interpret this as an actual character, rather than an enhancement of other text. In this way, you may create underlines despite a printer's interpretation of the underline function.


Note: Use this command only if your printer does **not** underline spaces. If your printer will underline spaces, you won't need to use .

The underline character is not supported by all printer files.

BOLDFACE


To print text in boldface, press



A small marker will be placed into the text at the cursor position.  Text following will be printed in a darker, bolder style.

To switch boldface printing off, press



the symbol  will appear and the text between the two markers will be printed in boldface.


ITALICS

Italics is a slanted, stylized version of regular printed characters. To engage italics printing, press



the symbol  will appear and PaperClip III will print the text following in italics. Many printers cannot print italics. In those cases, the printer file usually has defined an alternate function to replace italics. To end italics printing, press



the symbol  will appear and the text between the two markers will be printed in italics.





COMBINING SPECIAL PRINTING COMMANDS

You can combine printing commands by entering each separately before entering text. For example, to print a line in bold italics, press



and type your text.

Be sure to end all initiated special printing commands. To end bold italic text, press

 )   >

Combining the various special printing commands can add a great deal of variety and emphasis to your document.

SUPERSCRIPTING

Superscripted text is printed slightly above the rest of the line of text. Often it is printed using smaller characters. Superscripting is used in mathematics, denotes special notes or conditions, etc.

To superscript a single character, press

  #

A character looking like a raised minus sign will appear on the screen and the very next character will print superscripted. Text following that next character will print normally.

To superscript several characters, press

  %

The symbol ⁺ will appear. All text between this superscripting on symbol and the next superscripting off characters will print in superscripted form.

To turn superscripting off, press

  '

The symbol ⁺ will appear. Superscripting is off.

SUBSCRIPTING

Subscripted text is printed slightly lower than other text on the same line. Often it is printed using small characters.

To subscript a single character, press

  \$

A character looking like a lowered minus sign will appear on the screen. The very next character will print subscripted. Following text will print normally.

To subscript several characters, press

  !

The symbol ν will appear. All text between the subscripting on and subscripting off characters will print in subscripted form.

To turn subscripting off, press



The symbol \checkmark will appear on the screen.

HARD SPACE

Spaces in text are used to indicate where each word ends. During printing each line of text is broken at a space character. Usually this is the proper place to end one line of print and start the next. There are cases where two words should not be separated. For instance, an address should not have the number printed at the end of one line, and the street name appearing at the beginning of the next.

PaperClip III provides a way to keep words joined together, yet still printed with the proper spacing. A hard space will print as a regular space, but PaperClip III interprets it as a printed character, part of a longer word.

To enter a hard space, joining two smaller words as one, press



A small bar will appear. This symbol will be printed as a space. During formatting, it will be treated as a printed character, and the text will not be divided. If there isn't enough room at the end of a line to accommodate the entire sequence of words and hard spaces, it will be moved to the beginning of the next line.

For example, to keep the address **123 Main Street** from being inadvertently separated, you would enter

123

then press



followed by

Main Street

The number **123** would always print on the same line as **Main**.

CONDITIONAL HYPHEN

If your writing involves many long words, you may want to indicate appropriate places in those words where hyphenation could be placed during formatting. During printing, PaperClip III checks for conditional hyphens. If a word will fit without being hyphenated, the conditional hyphen won't be printed.

During printing, if a word with a conditional hyphen is too long to fit at the end of a line, PaperClip III will calculate whether the word would fit when hyphenated. If the hyphenated word would fit, PaperClip III will print the first part of the word at the end of one line (with a hyphen), and the rest of the word on the next line.

Remember, a conditional hyphen will appear on the printed page only if it is needed to make a word which is otherwise too long fit at the end of a line.

To mark a word with a conditional hyphen, place the cursor where a hyphen would be grammatically correct, then press

 - (

A thick hyphen will appear in the word.

BREAKPOINT

If your text includes long words which include hyphens, you may find the breakpoint useful. For instance, chemical names often have several parts, each connected with a hyphen. You can tell PaperClip III to divide a long word at a non-space character, using the breakpoint to indicate where the word could be divided during printing.

To mark a possible division point in a long word, position the cursor where the word could be broken during printing, then press

, and enter  !

If a word containing a breakpoint is too long to fit at the end of a line, PaperClip III will calculate whether the word would fit if split. If so, PaperClip III will print the first part of the word at the end of one line (up to the breakpoint), and the rest of the word on the next line.

Remember, the breakpoint will be used only if it is needed to fit a word which is otherwise too long.

For example, **hypo-allergenic** could be entered as

hypo-

followed by the breakpoint symbol, then

allergenic

The special symbol after the hyphen is the breakpoint marker.

SENDING SPECIAL CHARACTERS TO THE PRINTER

While PaperClip III supports most functions through the printer files, some printers have extra features or modes that aren't directly supported. For instance, your printer may have an envelope feeder which needs a special command to load the next envelope. A letter quality printer may allow an alternate set of symbols to be printed, but the command isn't built into the printer file.

Normally, instructions for the printer are generated by PaperClip III, but occasionally you may want a function which PaperClip III doesn't understand. For example, you may be preparing a presentation which deals with British pounds instead of dollars. You know from your printer manual that your printer can print that symbol, but the printer file doesn't support it.

You can assign special codes to each of ten digits, then send these codes directly to the printer during output. The command

√x=y+

defines the digit **x** (any number from 1 to 9) as equal to the value **y**

To include the special code in the information sent to the printer, press

⏏&

The symbol **↑** will appear in text at the cursor position. The digit immediately following will cause the corresponding code to be sent to the printer.

Special characters **1** to **5** are defined as "printing". PaperClip III will assume that the code sent to the printer caused a character to be printed, taking up space in the printed text. If justification or centering is engaged, it is important that PaperClip III know exactly how many characters have been printed.

Digits **6** to **9** are considered "non-printing". During output, PaperClip III will assume that the code didn't actually print anything, but was used for some non-printing purpose, such as changing print style.

As an example, the code sequence to print a **£** on a Roland 1011 is

27, 82, 3, 35

These four codes need to be sent to the printer in that order to print a single ¢ character. To set up this sequence, you type a format line like this:

✓6=27:7=82:8=3:1=35+

Note that three of the codes are assigned to "non-printing" digits; only the last is defined as a printing character. Since ¢ is printed as one character, only the **1=35** entry will be counted as printing when calculations for centering and justification are made.

When you want to include the ¢ character in your text, you would type

☐&6☐&7☐&8☐&1

In our example, the final result might look like this on the screen...

My estimates show the cost would be 16↑7↑8↑1 35,286.50.

But it would print like this...

My estimates show the cost would be ¢ 35,286.50.

FORMATTING TEXT

PaperClip III is a post formatting word-processor. The text you type isn't properly formatted until it is printed. During editing, there is a simple relationship between the text on the screen and the final, printed page. Formatting commands are placed directly in the text, providing tremendous flexibility in editing the text and controlling its output.

Because the text is formatted at print time, it is important that you don't try to format the text during editing, inserting extra spaces or splitting lines to improve the appearance in edit mode. You control the final appearance with the formatting commands described here.

Each formatting command must appear with a **checkmark** symbol (✓). This is achieved by pressing **☐**.



Formatting directives only affect the text which follows them, they have no effect on preceding text.

PaperClip III divides each printed page into several regions. The paper length contains the vertical position, the header offset, the actual page size (printing area) and the footer offset. To the left of the text area is the

printer offset and the left margin. The right margin defines how much space the text may occupy, measuring from the left edge. The top margin encloses the header, and determines how far down the page the main body of text will appear.

LEFT MARGIN

PaperClip III uses a default margin setting of 10. This means the leftmost character printed on the paper will appear 1 inch from the left-most printable position on the paper. You may set the base left margin from 1 to 250. The left margin cannot be greater than the right margin.

Select the option **Left Margin** from the Main Menu. Use  and  to increase or decrease the values in the right-hand column. The value set through this menu will be implemented until PaperClip III comes across an embedded **lm** command (explained below). Embedded format commands override the global margin settings.

For example, set the left margin menu option to 15. All relative left margin commands ($\sqrt{\text{lm}}-5$ or $\sqrt{\text{lm}}+10$) will be relative to the value of 15. However, if you embed another left margin command (e.g. $\sqrt{\text{lm}}20$), this value will be in effect and any relative margins following the embedded command will be relative to the value of 20.

To change the left margin setting within a document, enter the command

 **lm**

It will appear on your screen as $\sqrt{\text{lm}}$.

Follow the command with the new left margin value. For example, the command to set the left margin to column 21 would be

$\sqrt{\text{lm}}21+$

The left margin can be adjusted relative to its current base setting. You can move the margin in or out any specified amount. To adjust the left margin setting relative to its current value, insert a + or - character before the number.

To widen the left margin 17 columns, narrowing the printed text, you would use the command...

$\sqrt{\text{lm}}+17+$

To narrow the left margin by 5 columns, the command would be...

$\sqrt{\text{lm}}-5-$

Relative margin commands are always based on the current **fixed** margin settings. Relative adjustments do not accumulate; the margin is calculated from the last setting used to move the base margin position.

✓**lm20+** (base margin set to 2 inches)
✓**lm+10+** (margin adjusted to 3 inches)
✓**lm-3+** (margin adjusted to 1.7 inches)
✓**lm+5+** margin adjusted to 2.5 inches)

To turn off relative adjustments, use the command

✓**lm+0+**

or simply reenter the left margin command ✓**lm20+**

RIGHT MARGIN

The default right margin setting is 70. This means the farthest right text will be printed on the paper 7 inches over from the left edge. The right margin setting can vary from 1 to 250. The right margin can't be set less than the left margin.

To adjust the basic right margin setting, alter the value on the **Right Margin** option on the Main Menu, or enter the command

✓**rm**

followed by the new right margin value. For example, the command to change the right margin to column 96 is

✓**rm96+**

The right margin can also be adjusted relative to its current setting. To adjust the right margin relative to the current fixed value, use + or - between the command and the number.

The command

✓**rm+20+**

moves the right margin 20 columns, expanding the printed text.

To reduce the right margin 1 inch, the command would be...

✓**rm-10+**

Relative margin commands are always based on the current **fixed** margin settings. If no ✓**rm** commands have been entered, relative margins are based on the current Main Menu Right Margin value. Relative

adjustments do not accumulate; each new adjustment is calculated from the base margin value.

To reset the right margin to the current base setting, use...

✓rm+0+

MARGIN ADJUST

The margin adjust command allows you to temporarily alter the left margin setting, adjusting it in or out a specified amount. For example, if you wanted to indent a single paragraph, you could use the command

✓ma+5+

The very next paragraph would have the first line indented one-half inch. Margin adjust only affects the first line of the paragraph immediately following the command. Text after the first line will be printed according to the current margin settings.

To extend the first line of the next paragraph left by 3 columns, the command would be

✓ma-3+

Note: Don't use numbers which will result in the left margin being adjusted to less than one or greater than the right margin.

COMBINING FORMAT COMMANDS

Embedded Format Commands in Text

(See also Appendix B: Summary of Format Directives)

When Formatting commands appear on a line of their own, that line must begin with a ✓ symbol, and the previous line must have ended with a **RETURN**.

All formatting commands can be concluded with a **return** marker. If you wish, you may start entering the text of the next paragraph on the same line as the formatting directives. Simply mark the end of the formatting command with a semicolon, instead of pressing **RETURN**.

Most formatting commands can appear anywhere in text, even in the middle of a paragraph. This ability is new with the release of PaperClip III. When a formatting command is positioned in the middle of printable text, its beginning AND end must be marked using the ✓ symbol.

For example, all of the following are valid ways to set a left margin of 15:

✓lm15+

This is some text ✓lm15✓ and this is some more text

✓lm15;This text uses the new margin setting.

This is paragraph one ✓lm15✓+

This is a paragraph too.+

Notice that the embedded command in the last example needed a closing ✓ symbol as well as the **return** marker . Whenever a formatting command appears within text, it **MUST** end with another ✓ symbol.

Many formatting commands can be grouped together. This helps reduce the on-screen clutter, and makes the command easier to follow. After entering the first command of a group, enter a colon instead of pressing RETURN . Then enter the next command. When the last command has been entered, press

RETURN

For example, to adjust both left and right margins, and set the printer spacing, the command could be

✓lm15:rm80:sp2+

PAPER LENGTH

Regular 8 1/2" by 11" paper will hold 66 lines of text printed at 6 lines to the inch. This is the default used by PaperClip III. If you are using different length paper, or change the number of lines printed per inch, you will need to change the page length setting.

Because formatting commands do not affect the text printed before they are encountered, you must place the paper length command above any printed text if the first page is to be measured correctly. In most cases, the command will be very near the top of text.

To set the paper length, enter the command

✓pp

followed by the new length in lines. For instance, to set the paper length to 72 lines, the command would be...

✓pp72+

When a **✓pp** command is encountered, PaperClip III will make several assumptions. First, it will assume that the printer is currently positioned at the top of a new page, and the length of the paper is that specified. It also assumes that every line on each page is to be used for printing. Since you will usually want some blank lines between the end of one page and the start of the next, the **✓pp** command is often accompanied by a new page size setting.

Note: The paper length represents the total amount of space available on each page. The settings for page size, top margin, header and footer spacing should not total more than the current paper length.

PAGE SIZE

You can control how many blank lines appear between the last line printed on one page and the first line on the next. This is done using the page size command. You can have PaperClip III print one line per page, up to the number of lines set in the page length. The default setting is 56 lines per page. To change the page size, change the value on the Main Menu **Paging** option or enter the command **✓pg** followed by the number of lines to be printed on each page. To use only 30 lines on each page, the command would be:

✓pg30+

When **✓pg** is encountered, PaperClip III will assume that the printer is at the top of a new page.

Note: Users of previous versions of PaperClip: If you increase **✓vp** or **✓tm**, **✓pg** must be adjusted so the total is not greater than **✓pp**.

VERTICAL POSITION

If you are using letterhead paper, you can have PaperClip skip a few lines before starting to print. The vertical position command tells PaperClip III how many blank lines to leave at the top of the page. The default setting is to skip **zero** lines.

To set the vertical position, the command is

✓vp

followed by the number of blank lines to appear at the top of each page. The command to skip 6 lines at the top of each page would be:

✓vp6+

Don't set vertical positioning larger than the page size.

Note: PaperClip III supports the VP command in order to retain compatibility with text files created by older word processors. For new documents, it is recommended that you use the Top Margin (tm) command to define the amount of white space you want to appear at the top of each page.

TOP MARGIN

To provide space for a header, and any needed white space above the body of text, use the top margin command. The top margin specifies how many lines the paper is to be advanced before printing the first line of the main body of text.

If you have defined a header, it will appear inside this top margin. Changing the size or placement of the header will not affect the placement of the main body of text once a top margin has been selected. The top margin value can be set by changing the value on the Main Menu. Press **F7** to access the Main Menu. Press **↑** to move the highlight bar to the Top Margin option. Press **↵** and **SHIFT** **↵** to increase or decrease the size of the top margin.

To specify a top margin within your document, use the command

tm

followed by how many lines down the page you want the body of text to appear. To have the text of your document start printing 8 lines down from the top of the page, the command would be

tm8+

Note: Once the top margin has been specified, you must make sure that any headers you define will fit inside this space. You cannot have a 3 line header printed inside a two line top margin. If you define a header without explicitly defining a top margin, PaperClip III will automatically set the top margin value to the number of lines needed for the header.

PRINTER OFFSET

If you use a wide carriage printer, or print narrow labels, you can offset the printed output to the right. Unlike the margin commands, offset shifts the entire output without changing the relative positioning of the margins, centering, etc. This is often handy if you need to print the text farther to the right on the paper, but can't move the paper to the left any more.

To offset the printed output to the right, the command is

of

followed by how many 10ths of an inch you want to shift the printed output. The command to shift the printed output 1 inch would be...

✓cl10+

LINE SPACING

PaperClip III uses a default line spacing of 6 lines per inch. This provides a paper length of 66 lines when using 11" paper. There are two other settings available.

The actual line spacing is determined by values in the printer file loaded from disk. A printer file has three line spacing entries, one each for 6 lines per inch, 8 lines per inch, and a third which is defined as an optional line spacing. The optional spacing is often set to 4 lines per inch.

To change the line spacing, enter the command

✓ls

followed by the new setting. If you enter 6 or 8, the line spacing will be set to 6 or 8 lines per inch respectively. If you enter any other value, PaperClip III will use the optional line spacing entry in the printer file to determine the line spacing.

To print 8 lines to the inch during output, the command would be...

✓ls8+

Be careful with the **✓ls** command. If you change the line spacing part way down the printed page, PaperClip III will not be able to correctly calculate where the end of the paper occurs. If possible, issue the line spacing command before any text, or immediately after a force page command.

PRINT SPACING

You can have PaperClip III print your text spaced however you wish. The default print spacing is single spaced.

To change the print spacing, the command is

✓sp

followed by the new spacing. PaperClip III will print each line of text, then add blank lines until the number specified is reached before printing the next line of text.

To separate each line of text with three blank lines, the command would be...

✓sp4+

To select single spaced printing, use the command

✓sp1+

INTER-PARAGRAPH SPACING

If you often want to print text with a set number of blank lines after each paragraph, this command may prove useful. PaperClip III will insert the specified number of blank lines after each paragraph is printed. To specify the number of blank lines to be inserted after each paragraph, use the command

✓p

followed by the number of extra lines desired.

To force two blank lines to appear after each paragraph, the command would be

✓ip2+

Note: PaperClip III interprets a paragraph as text which occupies two or more lines on the paper when printed. Short lines of text ending with return markers will not have any additional blank lines inserted below them.

ALTERNATE PAGE PRINTING

PaperClip III can assist in printing a document on both sides of the paper. To do this, PaperClip III first prints all the odd numbered pages (one, three, five, etc). Then you insert the paper so that the next page printed will appear on the back of the previously printed page one. Finally, PaperClip III prints all the even numbered pages (two, four, etc.).

You can use this technique with both continuous form paper, and individual sheets. To print alternate pages, use the command

✓ap

followed by a non-zero number. To print all the even numbered pages, use an even number here. For the odd numbered pages, use an odd number. To print all pages, even and odd numbered, use 0, which is also the default. For example, to print only the even numbered pages, the command would be

✓ap2+

PRINT PITCH

PaperClip III uses a default print pitch of 10 characters per inch, often called pica. This provides 80 characters per line using 8 1/2" paper. Other settings are 5, 6, 8, 12, 15, 17, and 20 pitch.

To change the print pitch, enter the command

✓pt

followed by the new setting.

To print at 12 characters to the inch, the command would be...

✓pt12+

PROPORTIONAL PRINTING

Note: In order to perform proportional printing, PaperClip III requires that your printer be capable of proportional printing, and that the printer file contain the proportional information for PaperClip III.

If your printer is capable, PaperClip III can print using fully proportional character spacing. Proportional printing means that each character takes up exactly the right amount of space needed, and none extra. For example, a W would take up a lot more room than an i would.

Proportional printing allows PaperClip III to pack more letters on each line than it could using a fixed print pitch. At the same time, proportionally printed text is usually easier to read.

To turn proportional printing on, use the command

✓pr on +

To end proportional printing, enter

✓pr off+

LETTER QUALITY PRINTING

A number of dot matrix printers are available with a feature called Near Letter Quality, or NLQ printing. Usually this mode prints more slowly, using a finer character image. The end result is a much more pleasing printed page. To enable NLQ printing, use the command

✓lq on +

and to turn off this feature, enter **✓lq off+**

Note: For this feature to work, PaperClip III requires that your printer be capable of NLQ printing, and that the printer file contain the NLQ information for PaperClip III.

DOUBLE HEIGHT PRINTING

A number of the newer dot matrix printers have a special mode which produces printed characters with twice the normal height. This larger print can be useful for headings, titles, and notices. If your printer has this capability, and PaperClip III's printer file contains the corresponding commands, you can invoke double height printing with the command

✓dh on←

and to turn it off, enter **✓dh off←**

All text until the next double height off command will be printed in large letters.

Note: If your printer does not support double height printing, inserting ✓dh command could adversely affect your pagination when printing.

INSERTING BLANK LINES

To leave a large area free of text (space for a picture or chart), you can insert a specific number of blank lines into the printed output. The **✓ln** command uses less space in text than many **return** markers.

To insert blank lines in the printed text, the command is

✓ln

followed by the number of blank lines needed.

To create an open area 15 lines long the command would be

✓ln15←

If PaperClip III reaches the end of the page while processing the command, blank lines not yet inserted will be skipped. The **✓ln** command will also be ignored if it occurs prior to printing text at the top of a printed page.

Note: The ✓ln command must not appear in the middle of a paragraph. It must be placed in a directive line ending with a carriage return (←).

COMMENTS IN TEXT

Text following a comment command will be ignored during printing. The text can be a note to yourself, the document file name, a spare variable block, or other text you do not want to print.

To enter a comment in text, the command is

✓cm:

followed by the comment text. A comment can be only a single line of text, and must end with a **return** marker. If a comment is placed on line one at the top of text, it will be presented as the default file name for the **Save** command.

A sample comment would be

✓cm:This text written Tuesday afternoon.↵

PAUSE DURING OUTPUT

During printing, you may need to suspend the output temporarily. For instance, you may need to change the paper color, or exchange the printwheel on a daisy wheel printer. The pause command will stop output, and place the text following the command in the tab line as a prompt.

To pause output, insert the pause command in text at the desired location. The pause command must be preceded by a **return** marker. The pause command is

✓ps

followed by the prompting text. The prompt should be less than one screen line long, and must end with a **return** marker.

The command to pause prior to printing a color coded index would be

✓ps:Insert the RED paper now!↵

To continue printing after a pause, press **space bar**.

FORMATTING INSTRUCTIONS

The formatting commands that follow can be entered in several forms. In general, PaperClip III checks the first two characters of a command, then scans forward, looking for either a space or a digit. If a space is found, PaperClip III will accept the words **on** or **off** in addition to the digits **1** (on) and **0** (off).

This means that you can enter the commands in the style that feels most natural. For example, the command to turn justification on can be expressed as...

✓jul+ or as ✓ju on+

Note: Only the first command style, two characters followed by a single digit, will be understood by PaperClip programs prior to PaperClip II. If you need to exchange text files with earlier versions of PaperClip, limit yourself to this stricter format.

JUSTIFICATION

When your text is printed, it is usually left aligned. This means the left margin will be even while the right edge is ragged. This is the default print style.

PaperClip III can format the printed text so that each line is exactly the same length. During printing, extra spaces are inserted between each word until the last word is even with the right margin. This results in a neat right margin — full justification.

To evenly align both margins, set the **Justification** option on the Main Menu to ON. To turn justification on from within the document, the command is

✓ju on+

Text following will be printed fully justified.

To turn justification off, the command is

✓ju off+

Remember, only the first two characters of each command are checked.

Note: Justification takes precedence over right alignment (description below). Turning justification on causes the following text to be justified, regardless of the right alignment setting.

RIGHT JUSTIFICATION

The right justification command performs a very similar function to regular justification. Regular justification (✓ju on+) will not justify the words on the very last printed line of each paragraph. In most cases this is what you would want. If you want EVERY line to be right justified, including the last line of each paragraph, use the command

✓rj on+

To turn right justification off, the command is

✓rj off+

CENTERING

PaperClip III can center printed text between the current margins automatically. All text printed between the centering on and centering off commands will appear on the printed page accurately centered between the margins. If you are centering a title, place a **return** marker after each line.

To center the text following, the command can be either

✓cn on+

or

✓ce on+

The centering command will accept either spelling, and is the only case where two different letters are allowed for the same command.

To stop centering text, the command is

✓cn off+

or

✓ce off+

Note: Centering takes precedence over both justification and right alignment. Turning centering on causes the following text to be centered, ignoring the current settings for justification and right alignment.

RIGHT ALIGNMENT

Text can be evenly aligned against the right margin, producing a ragged left appearance. Often used for address blocks in correspondence, right alignment is the reverse of the default left alignment.

To right align text, the command is

✓ra on+

To cancel right alignment, returning to the previous text format, use

✓ra off+

Note: Right alignment will be overridden by both centering and justification.

FORCED PAGING

You may want to control where on the page a certain part of text is printed. For instance, charts and tables should be positioned to avoid having part on one page, the rest on the next. You may want to ensure that a new section heading starts at the top of a page, or that a new paragraph isn't started on the last line of a page.

You can control the placement and pagination of the printed output with the force page command. When the command

✓fp+

is encountered, PaperClip III immediately advances the paper to the top of the next page, printing any headers or footers necessary.

You can have PaperClip III calculate the amount of free space remaining, and advance the paper if there is insufficient space for the next block of text. When a number follows the force page command, PaperClip III will calculate how many lines remain to be printed before advancing to the top of the next page.

For instance, you may have a chart which occupies ten lines when printed. To ensure that at least ten lines remained on the current page, the command would be

✓fp10+

If ten or more lines remained on the current page, PaperClip III will continue printing on that page. If there are less than ten lines available, PaperClip III will advance to the next page.

AUTOMATIC INDENTATION

Automatic indentation allows you to set the left margin for the first line of each paragraph to a different value than the rest of the text. This is useful for indenting the first line of each paragraph. For example, to indent all following paragraphs 5 spaces, the command would be

✓ai+5+

This will result in each paragraph having the first line of text start 5 spaces in from the current left margin. The text you are reading has been indented in this manner. Only the first line in each paragraph is affected by automatic indentation.

You can also set the automatic indentation to extend the left margin outwards a given amount. For instance, to provide room for an asterisk in the left margin before each new paragraph, the command could be

✓ai+3+

This provides an easy way to visually identify each important point in the text. Take care not to use settings which result in illegal margin positions.

To turn automatic indentation off, use the command

✓ai+0+

Automatic indentation will be overridden by centering. **Be sure to turn automatic indentation off when you are finished with it.** If it is not turned off, it will carry through a global file chain, affecting the printing of the rest of the document. If the margin settings in later sections of a global document seem to be acting strangely, check the automatic indentation command. It may still be turned on.

OUTLINING

The outlining function provides a convenient method of preparing a complex document, neatly organizing and keeping track of indention and paragraph numbering. It consists of several related commands, which are used to define the shape, ordering and style of the indented text.

The outlining is actually applied to the text during printing. When using the outlining format command, do not set your outdenting margin greater than your indenting margin.

To initiate outlined text, use the command

✓ol+1+

Then enter **✓ol:** PaperClip III will indent the following text and place an upper case Roman numeral I just to the left of the indented text. PaperClip III provides five levels of outline style. If you descend further than five levels you will receive a format error.

Each level of indentation has been assigned a different numbering style. As you've seen, the first level uses upper case Roman numerals. The order used is as follows, starting with the first level of indentation.

<u>STYLE</u>	<u>EXAMPLE</u>	<u>MODE</u>	<u>Default OFFSET</u>
Upper case Roman numerals	I	R	7
Upper case alphabetic characters	A	A	3
Regular Arabic numbers	1	n	4
Lower case alphabetic characters	a	a	3
Lower case Roman numerals	i	r	7

This order can be selectively altered, using a command in this form:

`✓ol+1,i,o,m+`

The "1" in this example is where you indicate how many spaces this level is to be indented from the level above it. The "o" indicates how many spaces out the numbered label is to be positioned. You may not outdent by more than the indentation for that level. The "m" is used to specify the format, or "mode" to be used for the label.

For example, the command

`✓ol+1,10,8,R+`

would cause the next level to be indented 10 spaces, with the label printed in upper case Roman numerals outdented by 8 spaces. If you explicitly define an indentation format, it will be remembered as long as you are using it, or indenting further levels in. Once you step out to the indentation level above the one you specifically defined, the special format is forgotten, and the format will have to be redefined the next place you want to indent to that level.

The `✓ol:` command must be inserted each time you change a level (that is, after every `✓ol+1` or `✓ol-1` command) and each time you want a letter or number to precede the following text.

Do not use the `✓ol:` command if you have already established the outline level, and you want to continue to format the text at the current indention without adding another letter or character.

For example, if you entered

```
✓ol+1+
✓ol:This is level number one+
✓ol+1+
✓ol:This is level number two+
✓ol:This is level number two, item B+
This is level number two, item B continued.+
✓ol0+
```

The outline would output as follows:

- I. This is level number one
 - A. This is level number two
 - B. This is level number two, item B
This is level number two, item B continued.

To step out one level, and reduce the amount of indentation, use the command

^ol-1+

PaperClip III will reduce the indentation and style to that of the previous level of indentation. If the command is used when only the first level is active, all indentation will cease, ending the outline.

To cancel all levels of outlining at once, and return to regular formatting, use the command

^ol0+

HEADERS AND FOOTERS

PaperClip III can place a header at the top of each page, and a footer at the bottom. If you print long documents, this can be very useful. Automatic page and chapter numbers are available, and text can be centered, left and right aligned, with separately controlled pitch and spacing.

HEADERS

To insert a header above the main body of the text, enter the command

^hd

Now enter the number of lines above the main text where the header is to be placed. A setting of **1** would print the main text on the very next line below the header. To place the header on the fifth line above text, enter

5

The next character is called the separator. With the release of PaperClip III, the symbol following the number defines the section separator. For example, to use : as the text separator, press

:

The text entered next will appear left aligned in the printed header. Text appearing after the first separator will be centered, text entered after the second separator will be right aligned. For instance, either of the commands

✓hd5:left:middle:right←



✓hd5*left*middle*right←

will print **left** five lines above text at the left edge, **middle** centered five lines above the main text, and **right** positioned at the right margin five lines up from text.

If you need to leave an area of the header empty, enter the separator anyway. PaperClip III will keep track of the correct areas. For example

✓hd1:::PaperClip III←

puts **PaperClip III** at the top right corner of every page, just above main text.

A header may occupy more than one printed line on the page. To specify a multi-line header, separate each line to be printed using the \ (backslash) symbol. To achieve the backslash symbol, enter [F] (or [F]). The last line defined must still be terminated with a return marker. For example, the command

✓hd5*left*middle*right\LEFT*MIDDLE*RIGHT←

would print as	left	middle	right
	LEFT	MIDDLE	RIGHT

You may have as many lines defined in this manner as you like. The only limitation to this is that the entire header definition must be less than 129 characters.

Note: To print a header on the very first page, you must place the header command above any printing text. Once text has been printed, changes to the header will not appear until the next page. If you want a header to appear on the second page, but not the first, place the command after the first paragraph.

HEADER MARGINS

You can assign distinct margins to the header, separate from the text settings. Until you change them, PaperClip III assumes that the header is to use the same margins as text.

To set the left margin for the header, the command is

✓hl

followed by the new setting. To set the header left margin to column 14, the command would be

✓hl14+

To set the right header margin at column 75, the command is

✓hr75+

HEADER PITCH

The pitch used to print the header is usually the same as the current text pitch. You can select another pitch for the header.

To change the header print pitch to 12 characters to the inch, the command would be

✓ph12+

The same pitch settings available for main text can be used in the header.

MIRRORED HEADERS

To have your document print with a mirrored version of the header on opposing pages, enter

✓mh on

To cancel mirrored headers, enter

✓mh off

For example, if your header is defined as

Page	PaperClip III	Reference Manual
------	---------------	------------------

the mirrored header (which would appear on all even-numbered pages), would be printed as

Reference Manual	PaperClip III	Page
------------------	---------------	------

FOOTERS

To place a footer below the main body of the text, enter the command

✓ft

Footer position is specified as the number of lines below the main text body. A setting of 1 would print the first line of the footer right after the last line of main text. To place the footer five lines down from text, enter

5



The next character is called the separator. With the release of PaperClip III, the symbol following the number defines the section separator. For example, to use : as the text separator, press

:

The text entered next will appear left aligned. Following the first separator the text will be centered, after the second the text will be right aligned. For instance, the command

✓ft5:DRAFT::May, 1987+

puts **DRAFT** flush left and **May, 1987** flush right at the bottom of each page, five lines below the main text body.

A footer may also occupy more than one printed line on the page. To define a multi-line footer, separate each line using a \ (backslash- enter E or E to get one) symbol. The last line must be terminated with a return marker. For example, the command

✓ft3*left*middle*right\LEFT*MIDDLE*RIGHT+

would print as

left	middle	right
LEFT	MIDDLE	RIGHT

You may have as many lines defined in this manner as you like. The only limitation to this is that the entire footer definition must be less than 129 characters.

FOOTER MARGINS

Like the header, the footer margins can be explicitly defined. To position the left footer margin at column 10, the command would be

✓fl10+

To set the right footer margin at column 85, the command is

✓fr85+

FOOTER PITCH

The pitch used for the footer can be different from the text pitch. To set the footer to compressed (15 characters per inch) print, the command would be

✓pf15+

All pitch settings can be used in the footer.

MIRRORED FOOTERS

To produce a mirrored version of your defined footer on all of the even-numbered pages of your document, enter

✓mf on

To turn off mirrored footers, enter

✓mf off

The mirror effect reverses the right, center, left order of your footer definition. For example, if your footer is defined as

Page	PaperClip III	Reference Manual
------	---------------	------------------

The mirrored footer would appear as

Reference Manual	PaperClip III	Page
------------------	---------------	------

MARGIN LOCK

If you do not specify header or footer margins, they will follow normal text formatting. If you specify header and footer margins, they will be implemented independently from the text formatting.

PaperClip III gives you the option of having your header and footer margins conform to the text formatting even if you have given the header or footer margins specific values. To do so, enter

✓ml off+

To reverse the option, or to regain independence between text margins and header/footer margins, enter

✓ml on+

Note: If you set ☒ml back on, you must redefine your header and footer margins if you want them to be different from your text margins.

PAGE NUMBERING

There are two methods of inserting the current page number in a header or footer. The first method is quite universal, and allows you to place the page number almost anywhere in text. The second method also works, but has been provided mainly to accomodate text files created using older versions of PaperClip.

General Form

Whenever you want to have the current page number appear during printing, press

 & P (or  & P)

This will appear in text as

↑p

During printing, PaperClip III will replace these two characters with the current page number, then print the modified line on the printer.

Actually, PaperClip III can do more than just insert the page number. If you enter the command as

↑rp

PaperClip III will print the page number in roman numerals! If you prefer your roman numerals in upper-case, use

↑Rp

PaperClip III can print page numbers as large as 3839 using roman numerals.

Old PaperClip Form

When you place a special pair of characters in the text of the header or footer, PaperClip III will automatically substitute the current page number during output.

PaperClip III substitutes the correct page number wherever the symbols <> appear in a header or footer. For example, the command

√ft5:::<>+

will print the page number at the bottom right corner of each page. The <> characters must be adjacent, if they are reversed or separated by spaces, PaperClip III will simply print them as is.

SETTING THE PAGE NUMBER

PaperClip III normally assumes that the starting page is number one, then increments the page number every time a new page is started. You can override this default, setting the starting page number to any value you want.

Once you set the new number, PaperClip III will count from that number forward. To set the current page number to five, enter

✓p#5+

PaperClip III will immediately note the new value – the next header or footer printed will reflect the new setting.

CHAPTER NUMBERS

Unlike page numbers, chapter numbers are controlled directly, they will not be automatically adjusted.

There are two methods of inserting the current chapter number in a header or footer. The first method allows you to place the chapter number almost anywhere in text. The second has been provided to accomodate text files from older versions of PaperClip.

General Form

☐ & C (or ☐ & C)

This will appear in text as

↑c

During printing, PaperClip III will replace these two characters with the current chapter number.

If you enter the command as

↑rc

PaperClip III will print the chapter number using roman numerals. To print the roman numerals in upper-case, use

↑Rc

PaperClip III can print chapter numbers as large as 3839 using roman numerals.

Old PaperClip Form

During printing, PaperClip III will substitute the current chapter number wherever the symbols [] appear in a header or footer. For example, the command

✓ft5::Chapter [] ←

will print the current chapter number centered at the bottom of each page. The [] characters must be adjacent, if they are reversed or separated by spaces, PaperClip III will simply print them.

SETTING THE CHAPTER NUMBER

PaperClip III will not change the chapter number automatically. When you want to start a new chapter, you must explicitly enter the new setting.

To set the current chapter number to three, enter

✓ch3←

PaperClip III will immediately note the new value — the next command using a chapter number will print using the new value.

ADJUSTING THE CHAPTER NUMBER

You can add to or subtract from the current chapter number. The command

✓ch+7←

will add seven to the chapter number setting.

LINKING FILES

A document you create with PaperClip III has a maximum text size of 202 lines on the C64 (approximately 2 1/2 pages) and 499 lines on the C128 (999 using a 40-column screen). While this is sufficient for most letters, memos and general work, it may not be enough to accommodate longer, more complex tasks. To print a large document, you create several small text files, then print them in sequence. PaperClip III can link these smaller text files together, producing a much larger document than would otherwise be possible.

Note: When the size of your document approaches the limits of PaperClip's memory, you will receive a message "Near end of text memory." If you are ready to end your document enter a **return**

marker. If you want to continue your document you must also include a link command (see below).

There are several ways to print a document which is too large to fit in memory at once. Text files can be linked together like a chain, with each file containing a 'link' to the next. This is called a **global** file chain.

A related command allows files to be linked together freely. During output, PaperClip III will ask what the next segment is called when the current one has been printed, using a **non-specific** link.

Text files can be listed by filename in the order that they will be printed, using a set of **external** file link commands.

GLOBAL FILE LINKS

When PaperClip III reaches the end of text during output, it checks for special linking commands. If a global link is found there, PaperClip III can automatically load the next text file and continue printing. This process can be repeated again and again, allowing very large documents to be generated without any visible breaks.

To enter a global link, position the cursor at the end of text, in column 1. **The line above must end with a return marker.** Enter the command as

✓nx:

Immediately following the colon, place the file name of the next segment to be printed. For instance, if the next text file to be printed is called part two, then the command would look like...

✓nx:part two+

Note: If you get a "disk status 74, drive not ready" message, you need to specify the drive number as part of your file name, that is, **✓nx:0:part two+**.

PaperClip III will automatically load part two when the end of the text is reached during output.

If a text file is in memory, pressing



in response to the prompt

File name?

will present the file name from an **✓nx: link** (if there is an **✓nx:** at the end of text) on the prompt line.

To chain a large document together, put an **✓nx:** command on the last line of every text file but the last. Files linked in this way can be treated as one in operations such as output, search and replace, and spell checking.

Note: The **✓nx: link must be the last entry in the text file.**

NON-SPECIFIC LINK

Similar to a global link, the non-specific link must be placed at the end of a text file. The file name of the next section is not entered into the command. Instead, when PaperClip III encounters the non-specific link, it will ask for the **File name?** on the tab line. You then enter the name of the next segment to be printed.

The advantage is that you can change the order of printing, or include another segment, simply by entering the appropriate file name. You don't need to determine which section to print until it is time to actually print.

The non-specific link must be on the last line of text, and the line above must have a **return** marker. The command is

✓lk+

EXTERNAL FILE LINK

External file links depend on a control file which list the file names of each part to be printed. During output, PaperClip III will fetch each segment in turn, first saving the control file. When each segment has been printed, the control file will be reloaded and output will continue. The control file can contain any normal commands, including printing text, margin settings, and global file links.

The command is entered as

✓ex

followed by the file name of the segment to be printed.

External file links can join many small files without having to load and then save each with the correct global link, or remember the file names using non-specific links.

A sample external file might look like this...

✓lm10:rm70:pt12+

Hello+

✓ex:file one+

✓ex:file two+
The end.+

To print text using external links, simply load the file containing the external file list, then start output in the usual way.

PaperClip III will set the margins and print pitch, then print **Hello**.

The text in memory will be saved as the control file.



Next, PaperClip III will load and print **file one**, then **file two**.

Finally, PaperClip III will print **The end**.

Settings are carried from file to file, providing a smooth transition from one file to the next.

Note: Only one level of external files is allowed. In other words, files called in by an external file link can have linking commands themselves (✓nx: or ✓lk:) but may not have another ✓ex: command.

Since PaperClip III must save the control file between sections, the disk in drive 0 must not be write protected, and must provide sufficient space to store the control file.

After a video preview or printout of external files, enter Directory mode. Place the cursor on the [Control] filename. Press  S. When prompted "Scratch [Control]?" enter Y and press .

Your disk is now set to perform additional output utilizing external files.

OUTPUT

PaperClip III can output text in many ways. Before actually printing your text on paper, you can preview it with 40, 80, or 160 columns displayed across the screen. The preview screen can be scrolled left, right, up and down. If an error is spotted, you can stop and correct it, then restart output from the top of that page.

During printed output, the video screen displays the text as it is printed. The text in memory can be printed, or a file on disk can be specified as part of a global file chain. PaperClip III can stop after each page, or print continuously, include data for variable blocks, and automatically create multiple copies.

Before actually printing your text on paper, you can use video output to check for formatting errors, review the general layout, and examine the pagination.

VIDEO PREVIEW WIDTHS

Depending on the monitor you are using, you can select from several preview text widths. Press

SHIFT F8

If you have a 40-column monitor, you can choose from 40, 80 and 160 column settings. At 160 columns, each character is represented by a small block, rather than as an actual symbol.

When using an RGB monitor, or an adaptor cable with a composite monitor, you can select from 80, 160 and 320 column displays. The 80 and 160 selections will provide readable text, at 320 columns, block symbols are displayed.

VIDEO OUTPUT - PRINT PREVIEW

There are two methods of accessing Video Preview, through the Main Menu or through **CONTROL**.

Press **F7** to display the Main Menu and move the highlight bar over the option **Video Preview** and press **RETURN**.

PaperClip III will immediately access Video Preview and begin displaying your document in the selected Video Preview Width. To stop the scrolling at any time, press the **space bar**. (If you are in 40 column width, you can scroll the screen by pressing **END**). To continue viewing your document, press any key.

A dashed line across the screen indicates the end of a page. The Tab Line will display the current page number and the number of words viewed. When the document is through scrolling, press any key to return to the edit mode. To review a section of your document while remaining in Video Preview, press **SHIFT OR**.

You can have even greater control over **Video Preview** by accessing the preview mode by a second method, with the command **CONTROL V**.

Note: To utilize this extended version of Video Preview, the -output 64 overlay must be in memory. If PaperClip is not responding to the **CONTROL V** command, make sure the PaperClip III program disk is in the drive, and enter **CONTROL**, then press * **RETURN**. When **File name?** appears, enter -output 64 **RETURN**.

After receiving the command **CONTROL V**, PaperClip III will ask several questions prior to starting. These are basically the same parameters you must supply for printed output, allowing PaperClip III to provide an accurate preview of the text.

Mail Merge?

If you are using variable blocks (see **Form Letters**, below) in your text, press

Y

PaperClip III will ask

File name?

Enter the name of the file containing the data to be inserted into the variable blocks and press

Starting page?

PaperClip III can skip forward to any specified starting page. The page number you enter here is compared with the actual page number of each page as PaperClip III scans forward in the text.

Enter the desired starting page and press

Linked documents?

If the text to be previewed is part of a global chain, press

Y

Enter the name of the first file and press

PaperClip III will immediately load that file into text. Be sure the text in memory has been saved.

After answering the questions, PaperClip III will begin presenting the formatted text on the screen.

If the text extends beyond the right edge of the screen, the screen can be scrolled sideways using (or) PaperClip III will pause the output while you are shifting the screen about. If you need to inspect text which has scrolled off the top of the screen, press . Scroll back down with . To continue scrolling downwards, press **space bar**. (In C64, scrolling is available in 40 column preview only).

Pause output scrolling by pressing

space bar

Restart by pressing **space bar** again.

To completely abort video output while paused, press

CONTROL

To cancel video preview while the text is scrolling by, press

CONTROL CONTROL

VIDEO OUTPUT OPTIONS

Once video output has begun, several options are available. You can switch from single page to continuous preview and back to discontinuous. Output can be switched to the printer at the end of any page, and a page just previewed can be repeated on the printer.

Because PaperClip III is extremely busy when producing output, these keys should not be quickly tapped, but held down for one or two seconds. This gives PaperClip III a chance to acknowledge the keystroke and respond to it.

To switch to continuous output, press

C

PaperClip III will no longer pause after each page.

To switch to discontinuous, or single sheet output, press

D

PaperClip III will pause at the end of the next page, waiting for a keystroke before continuing.

When PaperClip III is paused at the end of a page, you can switch to printed output by pressing

P

The next page of text will be printed on the printer.

Note: If your printer is not hooked up, the message "Device not present" appears and you will be exited from Video Preview.

When paused at a page break, you can ask PaperClip III to output the page just previewed to the printer by pressing

R

PaperClip III will repeat the output of that page, sending it to the printer.

When paused at a page break, you can re-display the page just output by pressing

A

VIDEO PREVIEW COLORS

During video output, print enhancements such as boldface, underline, etc., are displayed in different colors. You can change these colors to any combination you find appealing.

To change the colors used in video preview to show special printing, press,

F1

If you are using a C64, PaperClip III will ask you if you want "-setup 64" loaded. Enter Y and press **RETURN**.

The PaperClip III Screen Options menu will appear. The top three entries control the basic screen colors. The second grouping lists each combination of boldface, italics, and underlining.

Move the highlight bar to the display section you want to change, then use the **←** or the + and - keys to adjust the color setting

SELECTING THE PRINTER FILE

The PaperClip III program disk includes **printer files** for most popular printers. These 'printer files' tell PaperClip III how to properly control your particular printer.

There are two methods for telling PaperClip III what kind of printer you are using. If you know the correct name of the printer file needed, it is easy to load that file from the Main Menu.

If you are unsure of which printer file to use, select your printer file from the Select Printer Manufacturer Menu (described below in **Selecting Printer File from Printer Menu**).

Refer to **Appendix D** to select the correct printer file to match your equipment. The printer file is PaperClip III's link with your printer. Take the time to select the correct entry. When you find the name of the printer file to use, highlight it using **←** and then press **RETURN**.

PaperClip III will load the printer file from the disk and install it inside the program.

Note: The file that PaperClip actually loads may have a different name than the one you selected. Don't be alarmed as many printers are similar and will utilize a common printer file.

Note: C128 users need to insert the Dictionary disk before loading the printer file.

Move the highlight bar to **Save Current Configuration To Disk** and press

RETURN

When PaperClip III starts up, it checks for a file called **pciii configure**. This file tells PaperClip III exactly how to set itself up. It "configures" PaperClip III — the name of the printer file is part of this information.

In response to the **File name?** prompt, press

RETURN

to accept the current file name.

Enter the drive number your system disk is in (this will usually be drive **O**.) PaperClip III will save the configuration. Answer the prompts that appear in the Tab Line with a Y or N **RETURN**. When you start up PaperClip III, your printer file will load automatically.

Selecting Printer File from Printer Menu

To access the Printer Menu, press

F1 F1 F1

Note: If this sequence does not access the Printer Menu, enter your PaperClip III program disk and enter **CONTROL** π then press * **RETURN**. To the prompt **File name?** type -setup 64 (or -setup 128) **RETURN**. Wait while PaperClip loads the overlay, then press **F1 F1 F1** again.

From the Printer menu select your printer manufacturer and press **RETURN**. If it is not listed, select one of the **Miscellaneous** options. (**Appendix D** provides a list of all printer file menu options.).

A second menu will appear. Select your specific printer model or a closely compatible printer and press **RETURN**. The printer file will load into memory.

Note: If you receive a "file not found" message, be sure your program disk is in the drive; C128 users should have their Dictionary disk in the drive.

You will want to save this printer file to disk so that PaperClip III will automatically load it each time you boot PaperClip III. To do so, move the highlight bar to **Save Current Configuration To Disk** and press **RETURN**.

Note to C128 users: Your program disk is so full that you will need to scratch the existing default printer file (Commodore MPS801) to make room for your printer file. To scratch the Commodore MPS801 file, view the Directory of your program disk. (Be sure the write-protect tab is off). Then position the cursor on the first letter of the Commodore MPS801 file and press **SHIFT** S.

Note: Make sure you are using a copy. **Never** alter your original PaperClip III disk.

PaperClip will prompt "Scratch Commodore MPS801?" Enter Y and press **RETURN** to confirm. Now you have space available on the disk to save **your** printer file as the default.

When PaperClip III starts up, it checks for a file called **pci3i configure**. This file tells PaperClip III exactly how to set itself up. It 'configures' PaperClip III — the name of the printer file is part of this information.

In response to the **File name? pci3i configure** prompt, press **RETURN** to accept the current file name.

Enter the drive number your start up disk is in (this will usually be drive 0.) PaperClip III will save the configuration. Answer the prompts that appear in the Tab Line with a Y or N **RETURN**. When you start up PaperClip III, your printer file will load automatically.

PRINTER

To output text to the printer, select **Print Document** from the Main Menu and answer the prompts.

Note: Interface Card Users

If you are using an interface with your printer, you should be aware of the following information:

Most interface cards are set up to perform ASCII conversions. PaperClip III requires NON-ASCII conversion. Check your interface manual for how to alter the settings. Many interfaces have a dip switch that controls this setting.

Another method for changing the setting is to alter the Secondary Address for Text option in the printer file. This option is the sixth option from the bottom of the file. Refer to your interface manual or dealer for the correct code.

Once you have entered and verified the correct code, be sure to **Save the Configuration to Disk**.

EXTENDED PRINTER REQUESTS

For more extensive printing options, press

, then type O [not the number zero]

Note: If PaperClip does not respond to this command (O), press , and enter * . Then enter **-output 64** when prompted for file name?

PaperClip III will now ask several questions.

Continuous output?

If you are using single sheets of paper in the printer, and want PaperClip III to pause after each page, answer

N

To print continuously without delaying after each page, press

Y

Mail Merge?

When using variable blocks within the text, you must tell PaperClip where the data to fill them is coming from. If you have variable blocks in the text and want to fill them from a disk file, press

Y

If you don't want PaperClip III to bother with variable blocks, press

N

Number of copies?

You can ask PaperClip III to print up to 255 copies of the document. If you want several identical copies, enter the quantity and press

If you only need a single copy, just press

RETURN

Starting page?

PaperClip III can skip forward to a specified starting page. The page number is compared with the actual page number as PaperClip III scans the text. When the page numbers match, PaperClip III will begin printing. Enter the desired starting page and press

RETURN

Linked documents?

If the text to be printed is part of a global chain, press

Y RETURN

PaperClip III will ask

File name?

Enter the name of the first file in the chain and press

RETURN

PaperClip III will immediately load that file into text. **Be sure the text in memory has been saved.**

PaperClip III will begin printing.

The text is displayed on the screen as it's printed on the paper. Pause output scrolling by pressing

space bar

Restart by pressing **space bar** again.

To completely abort printer output while paused, press

CONTROL

To cancel output while actively printing, press

CONTROL CONTROL

If your printer has an internal buffer, it may print a few lines before stopping.

CHECKLIST FOR TROUBLESHOOTING PRINTER PROBLEMS

- Is the printer plugged in?
- Is the printer turned on?
- Is its "ready" or "online" light glowing?
- Is the correct printer file loaded?
- Is the printer cover fully closed?
- Is there ribbon and paper loaded in the printer?
- Is the printer connected to the computer correctly?
- Is the printer set up according to the instructions in the printer manual?
- Is the interface set to transparent mode (that is, no ASCII conversions) according to the instructions in the interface manual?
- If your printer is not connected to the computer by a cord plugged into the disk drive, make sure the **Output Device** setting in the **PaperClip III File Options** menu matches your equipment.
- If printer test performs correctly **except** for line feed (that is, double spacing or all on one line), then check the line feed setting on the Printer Manufacturer Menu.
- Check **Appendix D** and the section on Creating Your Own Printer File, below, for more information on printers and printing.

PRINTER OUTPUT OPTIONS

Once printing has started, several options are available. You can switch between single page and continuous output. Output can be switched from the printer to video preview at the end of any page. Output can be halted completely, an error in the text corrected, and output resumed from the top of that page.

PaperClip III is very busy when printing. When using the keyboard to switch functions, hold the key down for one or two seconds. This gives PaperClip III a chance to accept the keystroke.

To switch to continuous printing, press

C

To switch to discontinuous, or single sheet output, press

D

PaperClip III will then pause at the end of the next page, waiting for a keystroke before continuing.

When PaperClip III is paused at the end of a page, you can switch to video output by pressing

V

RESTARTING OUTPUT

If you notice an error during printing, or video preview, you can stop output, correct the error, then restart output at the top of the last page. As long as the text or command you alter is part of the last page being output, you may restart the output after editing.

After halting output, you can edit the text, save the corrections, view a directory, and many other functions. If you are using global or external files, be sure to save the text before resuming output.

Restart cannot be used if the error occurred above the last page break. If you are previewing page three when you notice an error at the bottom of page two, you cannot use restart.

To restart output at the top of the last current page, press

CONTROL, then enter **SHIFT** P

PaperClip II will resume printing. All its internal settings will be restored, and the text is assumed to be the same one used for the previous output.

QUICK OUTPUT

You can have PaperClip III quickly begin printing, using all the default settings, by pressing

CONTROL, and then entering **SHIFT** O

PaperClip III will begin printing right away. Once started, you can switch to discontinuous output by holding down

D

for a few seconds.

OUTPUT TO DISK

You can redirect the entire printer output from PaperClip III into a disk file. This can be useful when formatting text for transfer to another computer, or to help in analyzing a printer file problem. When printer output is sent to disk, it will generate a sequential file.

To direct all output to disk, make sure your computer's proper setup is loaded (-setup 64 or -setup 128) in memory and press

F1 F1

to display the **PaperClip File Options** menu. Move the highlight bar to **Printer Output**.

Note: Be sure -setup 64 is in memory.

Set the printer output device number to that of your disk drive. If you have a single disk drive, select "8".

Now, when output is started, PaperClip III will ask

File name?

Enter the filename that PaperClip III is to send the printer output to, then press

RETURN

PaperClip III will ask

Drive number?

Enter the drive number where the output is to be sent, and press

RETURN

PaperClip III will output the text, writing every byte normally sent to the printer into the disk file. When printing is completed, the user must hit any key to continue. This will close the disk file.

FILE HANDLING

An important feature of any word processor is the ability to store documents and other text on disks for later retrieval. Disks can be used to store information in many forms. PaperClip III can save documents, ranges, and lists of data on disk. Information from other programs, such as addresses from a mailing list, or part numbers from a database, can be used with variable blocks in form letters. These are all stored on disks as files.

In addition to the actual files, each disk contains a special file called the directory. This file contains a list of the names of all the other files on the disk, what kind they are, and how much space each occupies. The directory also tells you the name of the disk, and how much space is unused, available for another file.

PaperClip III can store text on disk as a document or a data file, and load text from either. The disk directory can be displayed on the screen, or retrieved as a document, edited and printed.

Note: Before you can save anything on a disk, it must be formatted. See the section "Direct Disk Commands — Formatting A Disk" for instructions.

SAVING TEXT

The usual way to save text on disk is as a complete document. Each document is given a name. PaperClip III will save the complete text along with the current line length and tab settings. The document is saved in **PRG** format, which is compatible with the text files of several other word-processing programs.

Make sure the disk you want to save the text on is formatted, and has a sufficient number of blocks free. The more lines you have to save, the more blocks it will need. A full text area will need about 160 blocks on the disk.

When you are ready to save your text, select the **Save Document** option from the Main Menu, or press

CONTROL, and then S

PaperClip III will ask

File name?

Enter the name of your file. Disk file names can be up to 16 characters long. Each file stored on a disk must have a unique name. Letters, numbers and punctuation characters are allowable.

Limit the use of punctuation. Many have special meanings for the disk drive. While the disk drive will usually understand that these characters are part of a filename, in some situations they will be misinterpreted. Avoid using * ? , : " @ # \$ % & =

If you have placed a comment (✓**cm:**) at the top of text, PaperClip III will automatically display the text following the colon as the suggested filename. This helps avoid typing errors in the file name.

If Line 1 does not have a comment, the last file name used will be displayed. Be careful here, the filename may be that of a saved range, or contain special 'wildcard' symbols. Check the suggested file name carefully.

If the file name suggested is wrong, use the editing keys **ESC DEL** and **CLS HOME** to correct it. To clear the name completely, press

SHIFT **CLS HOME**

Once you have the correct file name, press

RETURN

PaperClip III will ask for

Drive number?

If you have one disk drive, with a single diskette slot, always answer

0 **RETURN**

If you have several disk drives, you can use numbers **0** and **1**, as appropriate. Disk drives and device numbers are discussed in detail in Device Numbers.

Before saving the document, PaperClip III will check several things. If there is a file already listed in the disk directory with the same file name, PaperClip III will ask

Replace existing file?

To replace the file on disk with the document in memory, press

Y **RETURN**

PaperClip III will erase the file on disk with that name, then proceed to save the text in memory.

If you don't want to erase the file currently on the disk, press

N **RETURN**

or

CONTROL

While the text is being saved, the tab line will show the drive number and filename in the form **0:file name**. The line counter in the status line will rapidly increment, indicating how many lines have been saved so far. When the document has been fully saved, the cursor will start flashing again. The filename will remain displayed on the tab line. The tab line will reappear when you start typing.

Note: If the disk has not been formatted, or some other disk problem is detected, a disk error message will be displayed on the tab line. Some common disk errors are discussed in Common Disk Problems.

SAVING A RANGE

There will be times when you wish to take a paragraph from one document and place it in another. Often, you will have written some text for another work and find that it would be useful to include it in your new writing.

You can save a range on disk, where it can be loaded into another document. If you frequently re-type the same paragraphs, charts or other text fragments, this can prove very handy. You can move blocks of text from file to file by saving ranges from one file and appending them to another.

If the range includes partial lines of text, all the text appearing on those lines will be included in the range saved to disk.

To save a range, press **CONTROL**, and then enter R to define it in the usual way. Then press

CONTROL, and then Q

PaperClip III will ask

File name?

Enter the name you want to save the range with, then press

RETURN

Enter the drive number where the disk is, and press

RETURN

If there is a file already listed in the disk directory with the same file name, PaperClip III will ask

Replace existing file?

To replace the contents of the disk file with the range, press

Y RETURN

PaperClip III will erase the existing disk file, then save the range.

If you don't want to erase the existing file, press

RETURN

or

CONTROL

When the document has been fully saved, the cursor will start flashing again. The file name will remain displayed on the tab line until you start typing.

The range will be saved on the disk in the same format as a text file. There is no difference between a saved range and a regular document. You can load a saved range as a document; and generally use it as you would any other text file.

LOADING TEXT

Note: Loading a file erases any text in memory — make sure you've saved the file you're working on before loading another one.

Once text has been saved on disk, it can be retrieved at any time. Loading a text file does not remove it from the disk. You can load it again and again. Loading a text file from disk replaces any text currently in memory. The line length and tab line will be restored to the settings in use when the text was saved.

If you know the file name of the text to be loaded, select **Load Document** from the Main Menu or press

CONTROL, and then enter L

PaperClip III will ask for

File name?

Type the name of the text file on disk.

If you are not sure of the file name, press **CONTROL** 0 or **CONTROL** 1 to display the directory of the disk. Place the cursor on the first letter of the file name you want to load. Press

RETURN

When PaperClip III asks Load "File name"? Y, press **RETURN**

If you have selected the incorrect file name, press N and reselect the file name.

If you have two disk drives, or a single drive with two slots, both disks will be scanned for the file to be loaded. If the filename cannot be found, the message

62,file not found,00,00

will be displayed on the tab line.

If the file is found, the text will be loaded into memory. The tab line will show the file name, and the line indicator on the status line will increment as the text is loaded.

If the file can't be loaded, the disk drive is empty, the disk isn't formatted, or some other disk problem arises, the error will be displayed on the tab line. Common disk errors are discussed in Appendix C.

Note: When using the **CONTROL** L command, PaperClip III will NOT check the document for its type, and will attempt to load any valid file that you specify. This allows you to import text from other word processors, etc. into PaperClip III. If you load a file which is incompatible with PaperClip III, or simply doesn't contain text, remember to erase it from memory before continuing.

APPENDING TEXT FROM DISK

Any text file on disk may be appended into the text currently in memory. The text file could be a saved range, or an entire document. When a text file is appended, it is inserted into the existing text. Provided there is sufficient room, there is no limit on the amount of text that can be appended from disk. If the text was saved with a different line length, it will be modified to fit the setting in use.

To append text from disk, position the cursor on the line where the new text is to be inserted.

If you know the filename of the text to be appended, press

CONTROL A

PaperClip III will ask for

File name?

Type the name of the text file on disk.

If you are not sure of the file name, first display the directory of the disk containing the text file. PaperClip III will remember where the cursor in text was. Place the cursor on the first letter of the file name you want to append. Press

CONTROL, and then A

When PaperClip III asks

File name?

Press **RUN STOP**

Once you have the correct file name entered, press

RETURN

The text from the file on disk will be inserted into the text in memory at the cursor position. Existing text following the cursor, including the line the cursor was on, will be pushed down to make room.

If the text being appended was saved with a different line length than the setting currently in use, it will be converted by the append function. This is an easy way to change the editing line length of an existing text file. Simply append the current text file into memory after setting the line length to the new size. Tab settings are not transposed when using append, they will have to be reset.

GLOBAL FILE COPYING

For large documents which use global file links, PaperClip III provides an easy method to copy all the linked files to another disk. The global file copy command will load each file in turn, then save it to the new disk. This requires two single disk drives, or a dual slot drive.

Put the source disk (the one containing the files to be copied) in one drive, and a destination disk in the other. The destination disk must be formatted, and have enough free blocks to hold all the linked files. Global file copy won't erase or change files already on the destination disk.

Make sure the text in memory has been saved — it will be erased during the file copy. To start global file copy, press

CONTROL, and then enter G

The first prompt asks

Copy tab line(s)?

When PaperClip III saves a document, it usually saves the tab settings along with the text. If you tell PaperClip III not to save the tab lines, programs which don't expect the tab information will be able to load the text file from disk properly. If you load these files into PaperClip III, the text will still look fine, only the tab line won't be updated.

Unless you need to use the text with a different word-processing program, copy the tab settings with the text. Press

Y

To copy the text files, leaving the tab information behind, answer

N

The second prompt asks for

File name?

Enter the name of the first file in the global chain, then press

The next prompt asks

Drive number?

You must have both disks inserted for global file copy to work. Enter the drive number the source disk is in, then press

PaperClip III will load the specified file from the source disk, then immediately save it with the same name on the destination disk. Next it will look for a **✓nx:** command at the end of the text. If it finds one, that file will be loaded, then saved on the destination drive. This will continue until a text file is loaded which doesn't have a link at the end.

You can use this command to copy files which aren't globally linked. Enter the file name of the text you need copied; PaperClip III will load and save it, then stop since the end of the text doesn't have a global link. Start the command again to copy the next file, and so on...

DIRECTORIES

DISK DIRECTORY

When PaperClip III saves a file on the disk, the disk directory is updated with the name of the file, what type it is, and how much space it takes up.

There is a finite amount of storage on a diskette, so the directory also keeps track of the free space available.

VIEWING A DISK DIRECTORY

To view a disk directory on the screen, first make sure the disk is in the drive. Then select Disk Directory from the Main Menu or press

CONTROL

If you have one disk drive, with a single diskette slot, press

0

If you have several disk drives, use **0** or **1** as appropriate. Disk drive numbers are discussed in greater detail in **Device Numbers**.

The list of files on the disk will appear with the size of each file displayed in blocks. The last line of the directory will read **BLOCKS FREE = xxx**, where **xxx** is the number of unused blocks available on the disk. Depending on the drive, a freshly formatted disk, not yet used to save files, may have 664 or more blocks free.

DIRECTORY MODE

Notice the **Disk Directory** indicator on the status line. PaperClip III is in directory mode. File names which have scrolled off the top can be seen by pressing **DOWN** (or **UP**) PaperClip III won't scroll more than 250 files back – it's unlikely you will have that many.

To quickly scroll the directory list up and down, press **CONTROL** before pressing the cursor key. This is the same fast scrolling used for text.

In directory mode only a limited number of commands are available. These include load, save, append, and direct disk commands. Functions which could alter text are disabled.



While in directory mode, screen reading can be used to respond to file name prompts for loading, appending, saving, etc. Just remember to position the cursor properly before you invoke the command.

LOADING FILES FROM DIRECTORY

You can load a file from the Directory by placing the cursor on the first character of the desired file's name. Press **RETURN** and Load "File name"? Y will appear. Press **RETURN** to confirm the load. Press **CONTROL** to abort.

DELETING FILES FROM DIRECTORY

To delete or scratch a file from the Directory (and from disk), position the cursor on the first character of the desired file name. Press **SHIFT S**. The

prompt "Scratch File name? will appear. Enter Y and press  to confirm the scratch. Press N  to abort the command.

DIRECTORY FILE TYPES

For each file stored on the disk, the directory will show the filename, general file type, and the number of blocks that file occupies.

PaperClip III documents are stored as **prg** files. The PaperClip III program, and other computer programs, will also show as **prg** types.

Data files are usually marked **seq**, whether they were created by PaperClip III or some other program. The file type **usr** is often used as a disk 'marker'. The Dictionary disk has such a file.

Note: File type is only an indicator of the file contents. It is up to you to know what each file actually contains.

If an asterisk appears next to a directory entry, that file has not been properly stored on the disk. During the course of writing the data on the disk, an error was encountered which prevented completion. This could be caused by removing the disk while the activity light is on, or the disk may have a bad spot which won't correctly hold the magnetic information.

The most common cause of an unfinished file is saving text without enough free blocks available. If the message

72,disk full,xx,xx

appears while saving text, that file will be incomplete. Files marked with an asterisk will often show 0 blocks used.

Do not erase a file marked with an asterisk. To remove the entry, validate the entire disk. This is described in Direct Disk Commands.

QUITTING DIRECTORY MODE

To continue editing the text, you must quit directory mode. Press



If the text hasn't reappeared yet, press



again.

DISK DIRECTORIES USING WILDCARDS

PaperClip III can use pattern matching to show only a subset of directory file names. This is similar to the wildcards used with search strings in text. If your disks tend to have a large number of files, this can make it much easier to find a specific one.

Several special characters can be used to describe the filenames to be listed. The syntax, or grammar is quite specific. If a message such as **33,syntax error,xx,xx** appears, the disk drive was unable to interpret the pattern supplied. The contents of the disk will not be altered by using an incorrect pattern.

To view a disk directory using a search pattern, press

CONTROL2

PaperClip III will ask

File name?

The pattern you enter here will be sent to the disk drive. File names which fit the pattern will be transferred to PaperClip III and displayed. Those that don't match will be skipped.

An asterisk * will match any number of characters at the end of the file name. There can be only one asterisk, and it must be the last character in the filename in the pattern. For example...

- fre*** will match **fred, freddy, free 1000, freedom fighter...**
- fre*d y** is invalid, the asterisk must be the last character in the filename pattern.
- *** will match every filename, showing all files on the disk. This is the same as a regular view directory command.

You can specify the file type as well.

To see all the **prg** files on the disk, type

***=prg**

To list all files which start with **P** and have a file type of **seq**, type

P*=seq

Enter the appropriate pattern, and press

RETURN

The disk header will appear, followed by those file names which fit the pattern. The number of blocks free will then be displayed. If you have two disks, both directories will be scanned and displayed.

Note: PaperClip III will always check for two disks. If you have a single disk drive, or two drives with only one disk inserted, an error message may appear on the tab line. This simply indicates the second disk was not found.

LOADING A DIRECTORY AS TEXT

PaperClip III can load a disk directory as text. You can then edit, sort and print the directory as a regular text file. This is useful for labeling your disk sleeves with the directory, or incorporating the directory into another document.

Text below the cursor, including the line the cursor is on, will be replaced by the directory information. Position the cursor where the directory is to be placed, then press

CONTROL3

PaperClip III will prompt

File name?

Enter the pattern of the file names to load using the asterisk and question mark wildcards. To load the entire directory of all files, press

* **RETURN**

The disk directory will scroll up the screen. At the same time, it will be entered into text at the cursor position. If you have two drives, both directories will be loaded. When the directory is finished, PaperClip III will return to edit mode with the directory in text.

Note: The actual pattern matching is done by the disk drive, and the resulting list is then transferred to PaperClip III. Because of this, mistakes in the search pattern will result in an error message from the disk drive, rather than from PaperClip III.

SEQUENTIAL DATA FILES

PaperClip III can load and save text as a document file, or a data file. A document is saved as a block, with information such as line length and tab settings stored along with the text in a special format.

A data or **sequential** file contains only the actual text, without any extra information. The text is saved in a simple format that many other programs can understand.

Sequential files are used by PaperClip III for variable block and table of contents files. In addition, text saved as a sequential file can be

exchanged by many programs. For example, a database program may generate a list of names and addresses as a data file. PaperClip III would let you load that file, edit the list, then print the text.

SEQUENTIAL FILE FORMATS

There are two standards to which data in a sequential file can conform. Files created by programs on Commodore computers commonly use a format known as Commodore ASCII. Unfortunately, most other computers store their information in a format called standard, or true ASCII.

The basic information content in either type is the same, only the format is different. Because data files do not have any formatting information stored with them, you must tell PaperClip III which type is being used. Unless you are exchanging data with a non-Commodore computer, you won't need to change the data type from the default of Commodore ASCII.

To change the sequential file data type, press

F1 F1

The **File Options** menu will appear. If the **File Options** menu does not appear, be sure your program disk is in the drive and that the proper setup (-setup 64 or -setup 128) is loaded.

Move the highlight bar to **Sequential File Format** and use the + and - keys to select the desired format.

When the setting is correct, press

CONTROL or **F1 F1** (C128 **F1**)

to exit the menu.

SAVING A SEQUENTIAL FILE

Make sure the disk you want to save the text on is formatted, and has a sufficient number of blocks free. A full text area will need about 160 blocks free. The text will be stored in **seq** type file.

When you are ready to save your text as a sequential file, press

CONTROL, then enter Z

PaperClip III will ask

File name?

Disk file names can be up to 16 characters long. Each file stored on a disk must have a unique name. Letters, numbers and punctuation characters are allowable. Avoid using * ? , : " @ # \$ % & =

Once you have entered the file name, press

PaperClip III will ask for

Drive number?

If you have one disk drive, with a single disk slot, always answer

0

If you have several disk drives, you can use 0 and 1, as appropriate. Disk drive and device numbers are discussed in detail in Device Numbers.

If there is a file already listed in the disk directory with the same file name, PaperClip III will ask

Replace existing file?

To replace the file on disk with the text in memory, press

Y

If you don't want to erase the file currently on the disk, press

N

or

LOADING A SEQUENTIAL FILE

Note: Loading a data file erases any text in memory — make sure you've saved the text you're working on before loading another one.

Loading a sequential data file replaces any text currently in memory. PaperClip III will not check the contents of the file. You should be fairly sure the file contains text data before loading it in.

If you know the name of the sequential file, select **Load Document** from the Main Menu, or, press

CONTROL , then enter L

PaperClip III will ask for

File name?

Type the name of the data file on disk.

If you are not sure of the filename, first display the directory of the disk containing the text file. Place the cursor on the first letter of the file name you want to load. Press

RETURN

When PaperClip III asks

Load "File name"? Y

press

RETURN

once you have confirmed the correct file name.

If you have two disk drives, or a single drive with two slots, both disks will be scanned for the file to be loaded. If the file name cannot be found, the message **62,file not found,00,00** will be displayed on the tab line. Common disk errors are discussed in **Appendix C**.

DIRECT DISK COMMANDS

The disk drive in a Commodore computer system is intelligent. It has its own microprocessor and memory, just like the computer. It can carry out commands independent of the computer. This allows it to perform such functions as formatting a new disk, or validating a used one, while you continue to use the computer.

Since the disk drive is a separate computer, you need to be able to tell it what to do. PaperClip III can send commands to the disk drive via the **command channel**. This is a special link between the computer and the drive, like a telephone 'hot line'. PaperClip III doesn't examine the commands you send, it simply forwards them to the drive for interpretation.

There are many disk commands, the most common are described here. Refer to the manual that came with the drive for more information.

SENDING A DIRECT DISK COMMAND

To send a direct command to the disk drive via the command channel, press

CONTROL, then enter **SHIFT** >

The tab line will display

>

Enter the command to be sent and press

RETURN

PaperClip III will immediately send the command to the disk drive. If the drive is already busy processing a previous command, PaperClip III will wait until the drive accepts the new command. As soon as the command has been properly sent, PaperClip III will return to normal editing. It will not check to see if the command was interpreted correctly.

To abort the command, without sending anything to the drive, press

CONTROL

PaperClip III will return to editing without sending the command.

Below are a few commonly used disk commands.

FORMATTING A DISK

Before the disk drive can store information on it, the disk must be **formatted**. Formatting is the process of magnetically mapping the disk surface into many small areas, called blocks. In addition, a special area called the directory is organized and space for it set aside. Only after this has been done can information be stored on the disk.

When you format the disk, you provide a name and an ID code. The disk name is up to you, use something which will provide some indication of the data you will store on the disk. The disk ID is a two character code used by the drive to keep track of the disks as you exchange them, taking one out and inserting another, during daily use.

To format a disk, put it in the disk drive. Be sure you put the correct disk in — any data stored on the disk will be completely erased by the formatting operation. Now press

CONTROL, and then **SHIFT** >

The disk command prompt will appear...

>

To format a disk we need to send the **new** command. Press

N

Enter the drive number. If you are using a single drive, enter

0:

Now type in the name you want to label the disk as. Up to 16 alphanumeric characters are allowed. After the disk name, enter a comma, then a two character disk ID. Choose a unique pair that haven't been used with another disk. Again, both letters and numbers are allowed.

The resulting command should look like this...

>n0:diskname,ID

To quit without formatting the disk, press

CONTROL

To format the disk in the specified drive, press

RETURN

When the disk drive's activity light goes out, the disk formatting is complete. Check the directory. There should be no files listed and at least **664 blocks free**, depending on which drive you use.

VALIDATING A DISK

If the disk drive can't complete a command for some reason, it may not be able to clean up properly afterwards. This could be due to a damaged disk, or caused by opening the drive door while the activity light was still on. If a disk operation hasn't concluded correctly, the file being worked on at the time will be marked with an asterisk.

When this happens, the first thing to do is duplicate the disk. After making sure you have a copy of the affected disk, you should **validate** the original disk. Validation causes the disk drive to check every file listed in the directory, looking for inconsistencies and errors.

When you've used a disk for a while, saving, re-saving and scratching files on it, some of the blocks may become lost. They aren't being used by a file, but aren't included in the free blocks either. Validate your work disks

occasionally. This will provide some indication of the disk's general health.

As a disk becomes worn, errors will start to occur more frequently. When this happens, don't validate the disk any more. Copy the files onto a new disk, and discard the old one. It is much better to discard a suspect disk than to wait until it loses some valuable text.

When the validation process is finished, every file still listed in the directory has been thoroughly checked. Any files found to be in error, or incomplete, will be removed from the directory.

To validate a suspect disk, press

CONTROL , and then enter **SHIFT** >

The disk command prompt will appear...

>

If you are using a single drive, enter

VO **RETURN**

The disk drive will trace through the contents of a disk, checking for any files that are incorrectly stored. These will be removed. A directory entry marked with an asterisk means the file is incomplete. Validating the disk is the only way to properly remove these files.

If the validation cannot be completed, the disk error light will flash. This indicates a problem which cannot be corrected. Read the disk error message to find the cause of the error.

READING THE DISK ERROR MESSAGE

After every disk function, the disk drive prepares a reply. PaperClip III automatically checks this when you use built in commands such as load and save. When you issue a direct disk command, PaperClip III doesn't check the disk reply automatically.

You can ask PaperClip III to read this message directly. This is called **reading the disk error**. It's called an error message even if there wasn't any problem. The reply isn't returned until the disk command is completed, so PaperClip III may have to wait a moment before displaying the message on the screen.

To retrieve the current disk status message, press

CONTROL , and then enter **SHIFT** <

The disk status message will be displayed on the tab line.

The disk status can only be read once. If you read it a second time, the drive will report **00,OK,00,00** regardless of the success or failure of the last operation.

Common disk errors are listed in **Appendix C: Summary of Error Messages**. Your disk drive manual will provide a complete list of all possible disk errors.

DEVICE NUMBERS

Each peripheral connected to the Commodore's **serial bus** has a unique **device number**, much like house numbers on a street. When the computer needs to communicate with an external device, such as a disk drive, it uses the device number. Before PaperClip III can use a specific device, it needs to know the device number.

In addition to the device numbers, PaperClip III needs to know whether you have one or two disk drives, with single or dual disk slots.

If you have a single disk drive, the device number is usually **8**. If you have two single drives, the second should be set to device number **9**. While this can be done with a special program, it is better to have it permanently changed by your computer dealer.

If you have a 1571, there is a switch on the back, please refer to your 1571 manual on Changing Device Numbers as to how these switches should be set.

SETTING THE DISK DEVICE NUMBER

You must match the disk device number settings to your equipment before PaperClip III can properly control the disk drives. PaperClip III can utilize either one or two single slot disk drives, or one dual slot drive. (A dual slot drive has two diskette slots within the same cabinet). You must tell PaperClip III what type of drive you are using, in addition to the device numbers.

To adjust the disk device numbers, display the **File Options** menu. Press

F1F1

Move the highlight bar to **Disk Drive Device Number**.

If you have only one disk drive, either single or dual slot type, you should select **8**. This is the default setting. If you have many drives with various device numbers, select the appropriate number for your equipment.

SETTING THE DISK DRIVE ARRANGEMENT

Adjust the disk arrangement in the **File Options** menu. Press

F1 F1

Move the highlight bar to **Disk Drive Arrangement**.

PaperClip III needs to know the arrangement of your disk drives.

If you have two separate single slot drives, select **Two Single**.

If you have one drive, either single or dual slots, select **One (Dual)**.

During disk operations, references to drive number **0** will access the main device number specified in Disk Drive Device Number. If Two Single is selected, all references to drive number **1** will be passed to the next device number up from that specified by Disk Drive Device Number. This has the effect of making two single slot drives act as one dual slot drive.

For example, if the Disk Drive Device Number is set to eight, references to drive **0** will work with device number **8**. For drive number **1**, device number **9** will be used instead.

Note: It is critical that the correct disk drive arrangement be specified. If PaperClip III is not aware of the correct number and arrangement of the disk drives connected to the computer, the system may not operate properly. In particular, do not specify 'Two Single' unless you actually have two separate disk drives, with sequential device numbers, turned on and connected to the computer. It is a peculiarity of the Commodore serial bus system that an attempt by the computer to access a nonexistent device number can cause the computer system to lockup, requiring you to turn off the computer and restart your work.

SETTING THE DICTIONARY DEVICE NUMBER

To set the dictionary device number, use the **File Options** menu. Press

F1 F1

Move the highlight bar to **Dictionary Device Number**.

When using the Spelling Checker, PaperClip III will use the device number listed here to access the dictionary disk. If you have a one disk drive, either single or dual slot, you should select **8**.

If you are using two single slot drives, select either **8** or **9**, depending on which drive you intend to place the Dictionary disk in during spell checking.

SETTING THE PRINTER DEVICE NUMBER

There are several ways to connect a printer to the Commodore computer. PaperClip III can work with printers connected to the user port, the RS232 port, and the serial bus. Printers connected to the serial bus can be plugged in directly, or with a printer interface.

If your printer is manufactured by Commodore, it probably plugs into the **serial bus** directly. The cable from the printer will plug into the back of the disk drive. Some printers made by other companies also connect directly to the serial bus. These are usually advertised as being 100% compatible with a certain Commodore printer.

Most non-Commodore printers will be connected to the computer through a **printer interface**. This is usually a small box with a cable connected to the printer, and a second cable plugged into the back of the disk drive. These printers are often called **parallel printers**, because the interface transfers data to the printer using a parallel technique.

If you have an **RS232 serial printer**, it is probably connected to the user port, in the left rear corner of the computer, using a small adapter. In some cases, this same port is used to directly connect a parallel printer, using a very simple cable adapter.

Find out how your printer is connected to the computer. To set the configuration to match your printer setup, press

F1F1

to invoke the **File Options** menu.

Move the highlight bar to Printer output.

If your printer is made by Commodore, check the back for a small switch. This switch is used to set the device number to **4** or **5**. The usual setting is **4**. Set the device number in the menu to match.

If you are using a parallel printer connected with a printer interface to the serial bus, check the interface settings. Most will be set to device **4**. Match the menu to the device number the interface is using.

If the printer is connected to the port in the left rear of the computer, check whether it is using an RS232 or parallel hookup. If the printer is using a simple parallel interface on the **user port**, set the menu selection to **parallel**. If the printer is using an RS232 serial interface, select **RS232**.

RS232 printers will need several other settings adjusted before they will print properly. The menu entries for **RS232 Baud Rate**, **RS232 Word Length**, **RS232 Parity**, and **RS232 Handshaking** must be correctly set. See the appendix on RS232 printing for more detail on RS232 printer settings.

When the printer settings correlate to the equipment you are using, press

CONTROL

The menu will disappear.

PRINTING TO DISK

PaperClip III can be instructed to send output intended for the printer to a disk file instead. This can be useful when sending text to another computer via modem. Occasionally another program you want to transfer information to will require that it too be formatted. Redirecting the output to a disk file is called printing to disk.

To print to disk, set the printer device number to 8 using the **File Options** menu. When you issue the command to print, PaperClip III will ask you for the file name to send the output to. All output intended for the printer (including printer commands and control codes) will then be sent to the sequential file on disk.

Remember to reset the printer output setting afterwards.

AUTOMATIC TABLE OF CONTENTS

PaperClip III can create a table of contents file, containing text entries and page numbers. This can be used to generate text for an index, table of contents, or similar table.

First, the table of contents command specifies the file used to hold the contents text. Next, each entry is placed in the text at the appropriate point. During either video or printer output, PaperClip III will open the specified file. As each table entry is encountered, it will be added to the disk file along with the current page number. When the output is completed, the disk file will be closed.

The resulting data file can be loaded and edited. Each entry will have the page number it occurred on listed. This makes the creation of an accurate indexed list quite straightforward.

To prepare your text for automatic table of contents generation, enter

✓tf: (i.e. **tf**)

followed by the drive number, colon, and filename.

For example, to send the data to a file called **raw contents** on drive 0, the command would be

✓tf:0:raw contents+

For each place in the text where an entry should appear in the contents file, place the command

✓tb

followed by the text to be included in the contents file and a **return** marker. PaperClip III will copy the text into the specified data file, along with the current page number. A table of contents entry can be no longer than a single line length.

For example, the command

✓tb:Reducing Overall Costs+

would copy the text **Reducing Overall Costs** into the contents file, followed by the current page number. When the entire output has been processed, PaperClip III will close the contents data file.

Note: Save original file before loading the contents file.

The text in the contents file can now be loaded as a document. Edit the text, and print it out.

Note: If you need to output the text without creating a new table of contents file, replace the ✓tf: command with ✓cm:

C64 users: You can generate one table of contents per PaperClip III work session. A second attempt may result in a system error.

Wait until the end of your work session to generate the table of contents. This will keep you file up to date.

Note: Do not use the table of contents commands in conjunction with external file links or output to disk. If you select too many disk based functions, they will start to override each other, confusing both the disk drive and PaperClip III.

FORM LETTERS

PaperClip III can incorporate lists of data into special place holders in text prior to printing the document, then automatically load a new set of data, and print the text again, continuing until the data has been exhausted. This is often called mail merge, since a common use is to fill in the same form letter many times with names and addresses from a mailing list or similar program.

PaperClip III can be used to create, edit and print the actual data as well as incorporate it into text during printing. Prior to output, the variable

blocks may be filled with data from a disk file, the information can be entered by hand, or both methods can be combined.

An example of a form letter would be...

August 25, 1986+

Dear Ms. Dianne MacLead, +

Our records show that the amount overdue on your account is \$526.50. Please submit this amount in order to keep your valued account in good order. If this amount has been paid then disregard this notice. +

Sincerely, +

Alicia DeSoto+

The text for every letter sent to an overdue account would be the same. Only the name and the amount owed varies from one to the next. You can create a **form letter** with holes where the information that changes can be inserted. These holes are called **variable blocks**.

There are three stages to using variable blocks — creating the form letter, generating the variable data, and printing the filled out form letters.

VARIABLE BLOCKS

PaperClip III uses a special pair of symbols called a **variable block** marker to note each spot where extra text is to be inserted before printing the text. To enter a variable block into text, position the cursor where the inserted text is to appear, then press

CONTROL, and hit B

A pair of small squares will be inserted into the text. These blocks will not be printed, they simply act as a marker indicating where data is to be inserted.

CREATING A FORM LETTER

If we modify the letter above, replacing the name and amount with variable block markers, it would look like this...

August 25, 1986+

Dear , +

Our records show that the amount overdue on your account is \$. Please submit this amount in order to keep your valued account in good order. If this amount has been paid then disregard this notice. +

Sincerely, +

Alicia DeSoto +

Save the form letter on disk.

Now we need to set up the variable data to be used with this letter.

CREATING A VARIABLE DATA FILE

The variable data used in a form letter is stored in a separate data file on disk. This file could be created using PaperClip III, or it could be generated by a database or mailing list program. For the example form letter, the text would be entered as follows.

Erase all text, then enter the following information.

Annie Ablative +

12.36 +

Mr. A. Galapagos +

85.26 +

Mrs. Begonia +

789.23 +

Notice that each item is followed with a **return** marker. When PaperClip III is filling each variable block, the **return** marker indicates the end of one data item and the start of the next.

Variable data files must be stored on the disk in **sequential** format. To save the data file on disk, press

CONTROL, then enter Z

PaperClip III will ask

File name?

Use the name **data file** and press

RETURN

When the prompt

Drive number?

appears, answer

0 RETURN

to store the data file on drive 0.

PRINTING A FORM LETTER

Load the form letter saved earlier into text. For the example we will preview the form letters on the screen, but they could just as easily be printed. Press

, and then press V

PaperClip III asks

Mail merge?

Press

Y

Next question is

Mail merge file name?

Enter the name **data file** and press

PaperClip III will check the drive for the file before continuing. The last question is

Linked documents?

Press

The first copy of the form letter will scroll onto the screen.

When the end of the first letter is reached, the screen will present the same letter again, but the first set of data will have been replaced by the second, and so on until the disk file is exhausted. When there is no more data in the disk file, the message **Out of variable data** will appear.

Note: PaperClip III defaults to continuous print. It will not pause between pages unless you press and hold the "D" key.

MANUAL VARIABLE BLOCK COMMANDS

In addition to filling and emptying variable blocks during output, you can directly empty all variable blocks, enter new data for each one by hand, or from a disk file, and even switch data files in midstream.

To empty all variable blocks in text, press

CONTROL, then enter **SHIFT** N (C128 users must now enter a **RETURN**).

To move the cursor directly to the next variable block in text, press

CONTROL, then enter **SHIFT** F

If there are no further variable blocks in text, the message **Out of variable blocks** will appear.

To select a data file from which to fill the variable blocks directly, press

CONTROL, then enter **SHIFT** Z

PaperClip III will ask

Mail Merge File name?

Enter the name of the disk file containing the data to be inserted into the variable blocks and press

RETURN

This command can also be used to switch data files, or restart the current one by re-entering its name.

To insert the next data item from the currently selected file into the next variable block, press

CONTROL, and then enter **SHIFT** B (C128 users must now enter a **RETURN**).

PaperClip III will transfer a single data item into the next available variable block. This is very handy when you want to see exactly where each data item from the file will go, one at a time.

To fill all variable blocks in text with data from the currently selected data file, press

CONTROL, and then enter **SHIFT** V (C128 users must now enter a **RETURN**).

Each variable block will be filed in turn from the information in the data file. This command requires that all of the blocks be empty.

Use **CONTROL** **SHIFT** N to ensure this.

MULTIPLE DATA ITEMS PER LINE

When many data items have to be entered into a data file, several can be placed on each line of text using a special separator character. This separator is entered by pressing

  (or  )

and will appear in the text as \ .

For instance, the data from the previous example could be entered as...

Annie Ablative\12.36+
Mr. A. Galapagos\85.26+
Mrs. Begonia\789.23+

This allows each line to hold several related data items. When filling variable blocks, PaperClip III will recognize \ as a valid data separator.

VARIABLE BLOCK TECHNIQUES

If you are using variable blocks to hold street addresses, remember that each line of the address is a separate data item, and will require another variable block. If some addresses have fewer lines than others, add blank lines to the shorter ones to ensure that every address contains the same number of data items.

PaperClip III doesn't examine the contents of the data file, it simply retrieves enough data items to fill all the variable blocks, then prints the document.

You may have a data file which contains too many data items for the form letter you want to print. You can absorb extra data items by placing variable blocks in a comment in text. For instance, if you needed to skip over one data item for each copy of the form letter printed, you could use the command

/cm:Skipped items +

PaperClip III will fill the variable block in the comment just like any other, but it won't appear in the printed output since it is part of a comment.

Note: Variable blocks cannot be used at the same time as external file links or output to disk.

TELECOMMUNICATIONS

Telecommunications is the process of exchanging information with another computer using a telephone line. With the communications mode built into PaperClip III, you can access electronic mail, on line libraries, airline bookings, computerized shopping, local bulletin boards, free software...

Before you can explore the possibilities telecommunications presents, you will need a modem. A modem is used to connect your computer to the telephone line in your house. It translates the computer's data into a stream of high pitched tones. These tones are sent over the telephone line to another modem, which converts the tones back into computer data.

Because telephone lines are not designed to carry computerized data, it is transferred at a limited rate. Exactly how fast is determined by the capacity of the modem you buy, and the modem at the other end of the line. Both computers will need a modem, and both modems must be set to the same speed.

PaperClip III has been designed to work with many popular modems. Refer to the listing below. If your modem is not listed, it may be similar to one which is supported. Check your modem manual. The modem will need to be connected to the phone line. Direct connect modems use a cable designed to plug directly into a modular phone jack. If this is not possible, you can use an acoustic modem, into which the telephone handset is placed. Acoustic modems are generally very simple, and won't dial or answer the phone.

TELECOMMUNICATIONS BASICS

Computer systems store information, such as a PaperClip III document, in small pieces called bytes. Each byte is made up of 8 bits. When you send data via telecommunications, each bit is sent individually, followed by the next, until the entire byte is sent. Many of the settings in PaperClip III's **Communications Options** menu deal with the various ways of sending each byte.

When you use PaperClip III to call a remote computer, many things happen. PaperClip III uses the modem to dial the number. When the remote end answers, PaperClip III listens for a **carrier** tone. This is a special whistling sound an answering modem makes. When the carrier is detected, your modem will respond with its own carrier, using a slightly different tone.

Once the two modems have linked carriers, each reports **carrier detect** to its computer. PaperClip III announces that it has connected, and waits for you to press

RETURN

If you don't respond within one minute, PaperClip III assumes you have left it unattended, and hangs up.

Once connected, each key you press is immediately sent to the other computer via the modem. Characters received from the remote system are displayed on your screen. This is telecommunications – transferring information from one computer to another.

Most dial up systems require you to press a certain key once or twice before they respond. In addition, they usually echo back any characters they receive from you. In this way, each key you press is sent to the remote computer, which sends it right back to your end. When the character arrives at your modem, PaperClip III displays it on the screen. In this way you see what you are typing.

USING PaperClip III COMMUNICATIONS

Telecommunications is an independent system within PaperClip III. The command style is different from the rest of PaperClip III.

Computer telecommunications has its roots in remotely operated teleprinters (remote control typewriters). Many of the terms and techniques used today are based on these original telecommunicators. Described below are some of the most common terms used.

Baud Rate – Used to describe how quickly information is transferred between computers. The higher the baud rate, the less time it takes to exchange a given amount of data. Baud rate can also be expressed as bits per second, or BPS. The baud rate you use is determined by the slowest component in the link between the computers. If you have a 1200 baud modem, and your friend has a 300 baud modem, then 300 baud is the fastest you can exchange information.

Parity – Data sent over telephone lines is subject to interference. Clicks and buzzes during telephone conversation appear as incorrect or missing bits during data communications. Parity is a system of marking each byte of data before it is sent, then checking the received byte's marker for errors. Both ends must agree on the type of parity checking to use, otherwise every byte will be interpreted as incorrect by the receiving computer.

Some systems do not bother with parity, and neither send parity information nor check it on reception. Occasionally, a system which is advertised as not using parity will actually be using MARK or SPACE parity.

Word Length – Computer information is often stored in a form called ASCII in which only 7 of the 8 bits in each byte are used. Since the 8th bit

is never used, many ASCII systems only send the 7 bits, reducing the time needed to send each byte. Both ends must use the same word length setting, otherwise the receiving end will lose count of which bits are for which byte.

Duplexing — Many information networks automatically echo back information they receive. As you type on the keyboard, each character is sent to the other system. Each is instantly echoed back. The received data is displayed on your screen, and you see the characters you type. This is called **Full Duplex**, sometimes called **echoplex**.

Other systems do not provide this automatic echo. If you set PaperClip III to **Half Duplex**, characters will be displayed as you type them, rather than waiting for the echo.

Text Buffer — PaperClip III can send and receive text using the same memory used for normal editing. You can load a document in from disk, switch over to telecommunications, and send it out. When capturing, PaperClip III copies received data into text as it comes in.

XON/XOFF — Sometimes the computer at the other end won't be able to keep up with the data from PaperClip III. It needs to tell your computer to wait until it is ready for more. A protocol called **XON/XOFF** is used to control the flow of data.

A special character called **XOFF** is sent when the receiving system needs a breather. The sending computer then waits for an **XON** character before continuing. This is sometimes called **CTRL S, CTRL Q** handshaking.

File Transfer Protocol — When transferring the contents of a disk file, it is important that the received file be exactly the same as the original. Several error checking and correcting methods have been developed to assure the integrity of file transfers. These protocols guarantee that the information sent will be received correctly. The data is sent in small segments, along with several statistics and other checks. Each segment is checked, and if in error, re-sent. This process continues until the data has been transferred correctly. If a segment can't be received error-free, the transfer is aborted.

Most computers use the **XMODEM CRC** protocol. If the CRC method is not recognized, they revert to standard **XMODEM**. Bulletin boards operated with Commodore equipment often use the **Punter C1** protocol.

SPECIAL KEYS USED IN COMMUNICATIONS

Hook up your modem according to the instructions provided by the manufacturer. Many remote systems use special **control codes** for functions such as pausing transmission, aborting a command, requesting help, etc. These codes are sent by holding down **CONTROL** while pressing

another key. For this reason, PaperClip III has a different command key in communications mode.

To issue a command in communications mode, hold down the **⌘** key while pressing the key for that function. For example, the command

⌘R

means press **⌘** then press and release the R key while still holding the **⌘** down.























Control codes will be shown in the form

CONTROL C

which means hold **CONTROL** down, then press and release the C key with the **CONTROL** key held down.

The keys applicable to communications are...

F5	Switch communications mode on and off
F1	Display the Communications Options menu
F3	Display the Dialing Options menu
F6	Start text capture or transmission
CONTROL	Used in conjunction with a letter key to send control codes to the remote system.
SHIFT CLR	Clear the communications screen
⌘ B	Adjust the baud rate between 300, 1200 and 2400
⌘ W	Adjust the word length between 7 and 8 bits
⌘ P	Cycle through the five possible parity settings
⌘ D	Switch between full and half duplex operation
⌘ H	Hang up immediately
⌘ C	Alternate which clock is displayed
⌘ Z	Reset the displayed clock to zero

 T	Start file transmission using the current protocol
 R	Start file reception using the currently set protocol
   	Move the cursor in text to the top of text
  (C128)	Move the cursor in text to the end of text
 	Move the cursor up in text
 	Move the cursor left in text
  (C128)	Move the cursor down in text
  (C128)	Move the cursor up in text
  (C128)	Move the cursor left in text
  (C128)	Move the cursor right in text
 	Move to the beginning of the next line in text

Communication Options and **Dialing Options** menus are available in communications mode. They provide selections for almost any equipment configuration and communications setting.

Once you have selected the appropriate settings for your equipment, you can save the current configuration. When PaperClip III starts up next time, it will automatically match the settings to those saved.

SETTING UP FOR COMMUNICATIONS

Hook up your modem according to the instructions provided by the manufacturer.

Note: You should not turn off your modem when you are in communications mode.

To switch to the communications mode, leaving text intact, be sure your PaperClip III program disk is in the drive and select **Telecommunications** from the Main Menu.

The main communications screen will appear.

When you need to switch back to editing mode, press

 (or )

The Tab and Status lines display the present communication settings.

Before you can start using telecommunications, you must tell PaperClip III exactly what equipment you are using, and what type of remote system you will be calling.

To display the **Communications Options** menu, press

F1

This menu is used to describe the equipment you have, and how to respond to the remote computer.

Communications Options	
Baud Rate (BPS)	300
Parity	NONE
Word Length in Bits	8
Duplexing	FULL
Text Buffer	Capture
XON/WOFF Handshaking	Enabled
File Transfer Protocol	Pumper C1
Modem Type	Modem 300/1600
RS-232 Control Signals	Normal
Communication Type	ASCII
Auto-Line Feed	Off
Line Feed Generation	On
Backspace Code	8
Form Feed Response	Line Feed
Bell Response	Beep
Reverse-Field Printing	Disabled
Control Characters	Visible
Clock Display	Clock #1
Set Clock	

To change a menu setting, move the highlight bar with **←** (**←**) and **→** (**→**). Select the correct setting using + and -. When the menu accurately reflects your equipment configuration, press

F1 or **CONTROL**

SELECTING COMMUNICATIONS OPTIONS

Baud Rate

The baud rate determines how quickly information is transferred between computers. If you have a 300 baud modem, select 300. If you are using a faster modem, select from the speeds listed in the modem manual. Never set this higher than the baud rate your modem was designed for. PaperClip III can operate from 50 to 9600 baud. 9600 baud is not available when using a 40-column display.

Parity

This is not determined by your modem, but is part of the protocol used to transfer information between computers. Both PaperClip III and the remote computer must be set to the same parity. Parity may be selected from: NONE, ODD, EVEN, MARK, SPACE.

Many systems don't bother with parity and will work with parity set to NONE. Check the information packet for the service you are calling for the correct parity. If you aren't sure, try using NONE.

Word Length

You can choose either 7 or 8 bits. Because ASCII uses only 7 of the 8 available bits in each byte, many systems ignore the last bit, skipping on to the next byte instead. Since data is communicated a bit at a time, this results in quicker information transfer. It's important that both ends use the same word length. Again, this depends on the system you are calling.

Duplexing

Most systems automatically echo back information they receive. Each character you type in is echoed back and appears on your screen. This is called **full duplex**.

For systems which don't provide this echo, use **half duplex**. Characters will be displayed directly on your screen as you type.

Text Buffer

One of the most useful features of built in communications is that you can directly access the text while on line. You can load a document into text, edit it, switch to communications, then send the text to the other computer. You can capture information sent from the remote system into text, then switch back to edit mode, save it on disk, then switch back to on line.

Set this to indicate whether you will be sending text to the other computer, or capturing incoming data.

XON/XOFF Handshaking

When receiving data, the computer may need to request the far end to momentarily stop sending data. It does this by sending a special **XOFF** character. The sender will wait until it receives an **XON** character.

While most systems adhere to this protocol, some don't. Set this to **Enabled** unless the remote system doesn't use handshaking. XON/XOFF is sometimes called **CTRL S, CTRL Q** handshaking.

When transferring files direct from disk, PaperClip III can employ any of several file transfer protocols. For simple text transfers, **XON/XOFF** protocol may be used. It does not provide any error checking, merely

pausing data flow in response to XON and XOFF characters from the receiver.

File Transfer Protocol

For more critical files, you may select from **XMODEM CRC**, **XMODEM**, and **Punter C1** protocols. These check the data thoroughly — if an error is detected, the data is re-sent. Most systems use XMODEM CRC, which is an improved version of the original XMODEM protocol. If the CRC enhancement is not recognized by the remote system, PaperClip III will revert to standard XMODEM. Some older systems may become confused by the CRC attempts. For these, select regular XMODEM.

Punter C1 is used mainly by Commodore-specific bulletin boards.

PaperClip III is a multi-file transfer protocol. Before using **save** what you are working on because this protocol erases all text in memory before it begins. Load the directory as text (control 3). To delete the files you don't wish to send, place the cursor on the first character of the file name and enter **control** -. Then transmit as usual.

Modem Type

PaperClip III has been set up to work with a wide variety of popular modems. If your modem is listed below, use that selection. For those not listed, you will need to determine which modem listed here is similar to yours. Check your modem manual. You must select the correct modem type before using PaperClip III for telecommunications.

Vicmodem/1600

This is the original Commodore modem designed for the VIC-20 computer. A simple device, supporting 300 baud with carrier detection, manual answer/originate selection, no dialing capability. Many older non-Commodore modems are similar to the Vicmodem. If you aren't sure what modem selection to use, this is a good first try.

1650

Commodore modem, supports pulse dialing, carrier detection, auto-answer, manual answer/originate selection. Use this setting for 300 baud Volksmodems.

Modem300/1660

Commodore modem, supports pulse dialing, auto-answer, manual answer/originate selection. Early models did not provide carrier detection.

Mighty Mo

Computer Devices International modem, supports pulse dialing, carrier detect, auto-answer, electronic answer/originate selection.

HesModem II

Manufactured for Human Engineered Software (HES), supports pulse dialing, carrier detect, auto-answer, electronic answer/originate selection.

Modem1200/1670

Commodore modem, similar capabilities to Hayes modems, provides result codes. Supports auto-answer, pulse and tone dialing, carrier detect, electronic answer/originate selection, 300 and 1200 baud operation.

Note: When first turned on, this modem defaults to automatically answering the phone. If you use this modem, either disconnect the phone line when not using communications, or enter the commands to disable auto-answer immediately after starting PaperClip III. If you don't, the modem will answer the phone whenever anyone phones! The modem command is ATSO=0 RETURN

Hayes

Hayes SmartModems and compatibles. Supports 300, 1200, 2400 baud, auto-answer, pulse and tone dialing, carrier detect, electronic answer/originate selection. PaperClip III automatically makes use of the call progress monitoring and automatic baud rate matching features provided in 1200 and 2400 baud Hayes modems.

Other RS232

Similar to Hayes, this setting is intended for systems connected via an RS-232 interface, such as the Commodore VIC-1011A. If you are using a cable to transfer data between two computers in the same room, not using the phone lines, use this selection.

PaperClip III will make full use of any special features offered by your modem. Modems not listed may work with a setting meant for a similar modem.

RS232 Control Signals

Some unusual interface cards and older modems designed for the VIC-20 and Plus-4 computers may require the control signals inverted. If you are using a modem listed above, set this to **NORMAL**. If control lines are being interpreted backwards, try using **INVERTED**.

Note: Few modems will require INVERTED.

Communication Type

While most telecommunications systems use ASCII, some systems operated with Commodore computers use a modified form called Commodore ASCII. Use the **Commodore** setting for these systems. If you

are not sure which type the remote system will be expecting, use the **ASCII** setting.


Auto-Line Feed

Computer telecommunications began with teleprinters, which were really remote control typewriters. These printers had specific commands for returning the print head to the left side of the paper (Carriage Return) and advancing the paper to the next line (Line-Feed). The terms **carriage return** and **line-feed** come from this.

Some systems have combined these functions, and automatically assume line-feed when they receive carriage return. When PaperClip III receives a carriage return, it moves the cursor to the left edge of the screen. If **Auto-Line Feed** is set to **ON**, the cursor will automatically move down to the next line. If it is set **OFF**, PaperClip III will expect a line-feed character to move the cursor down.


If the system you are communicating with sends line-feeds, set this to **OFF**, otherwise text will be displayed double spaced.

Line Feed Generation

When you press  PaperClip III sends a carriage return character to the remote computer. If this selection is set to **ON**, a line-feed character will be sent right afterwards. If the other system doesn't need line-feeds, set this to **OFF**.

Most remote systems will operate properly with line-feed generation set to **ON**.

Backspace Code

When working with a remote computer,  is the only key that can be used to backspace. The actual character expected by the remote computer varies. Most ASCII systems such as Compuserve use a value of **8** to indicate a backspace (delete) function.

Commodore-specific systems usually expect ASCII **20** to indicate backspacing. DEC (Digital Equipment Corp.) computers often need a setting of **127** to backspace properly. Select the code which matches the system you are calling.

Form Feed Response

When PaperClip III receives a form-feed character, which would advance the paper in a teleprinter to the top of the next page, it checks here to see what to do.

If you select **Ignore**, PaperClip III will not alter the display at all. Select **LINE FEED** to move the cursor down one line when a form-feed character is received.

Clear Screen will erase the text on the screen and place the cursor in the top left corner when a form-feed is encountered.

Bell Response

If your computer monitor includes a speaker, PaperClip III can beep when it receives a **bell** character from the other computer. If you want PaperClip III to remain silent, select **Ignore**.

Reverse-Field Printing

When communicating with Commodore-specific systems which send reverse-field text, set this to **Enabled**. If you are not working with a Commodore system, or want to disable these effects, select **Disabled**.

Control Characters

Only a few of the many **Control Codes** possible are actually used by most computers. PaperClip III refers to this setting to determine what to do when a control code is received that it doesn't understand. Often these characters appear as a result of telephone line interference. If you select **Visible**, these characters will be displayed in reverse field. **Visible (NC)** allows them to be displayed, but not captured into text. To ignore these codes entirely, select **Ignore**.

Clock Display

PaperClip III has two 24 hour clocks which run continuously. When you connect with a remote computer, Clock #2 is reset to zero. This is useful to keep track of how long you have been connected to the remote computer. Clock #2 stops when the carrier detected signal from the modem turns off. Clock #1 runs continuously. Select which clock is to be displayed at the top of the screen.

Set Clock

To set the currently displayed clock to a new time, press

RETURN

PaperClip III will ask

New clock setting:

Enter six digits representing the new time, in the format **HHMMSS**.

HH is the hour in 24 hour format, **MM** is the minutes, and **SS** is the seconds. For example, 11:25 PM would be entered as

232500 **RETURN**

Pressing **CONTROL** while entering a new time will return to the menu without changing the clock setting.

Once set, the clocks will continue to keep time, even if you switch back to editing mode.

DIALING

Provided your modem is capable, PaperClip III can dial the phone number of another computer, wait for an answer, check for a proper carrier, then prompt you when the connection is made. If the number doesn't answer, or is busy, it can try other numbers until it gets through. If you need to collect electronic messages while you are away, you can have PaperClip III answer the phone, capture the information, then disconnect when the caller is finished.

Up to 10 numbers can be held in the phone number list. Each is stored with all the pertinent settings for that particular service. If you are talking to another computer user, and want to send or receive some computer data, PaperClip III can immediately pick up the phone, either as the originator of the call, or the answerer.

Before dialing a remote computer, make sure you have adjusted the various communication options to correspond with the those used by that system. In particular, check the modem type and baud rate. These must be correct for communications to work.

Note: Be sure the number you are calling will be answered by a modem! Don't use PaperClip III to call if you are unsure. Call by voice first, if a modem answers, hang up and use PaperClip III to call back. It is very poor practice to call a phone number by modem if a person may answer the phone.

DIALING OPTIONS

To display the Dialing Options menu, press

F3

This menu is used to store the phone numbers of a remote system, control the actual dialing operation, and save the configuration to disk. To invoke a command, or change a setting, move the highlight bar with **DOWN**. To adjust a setting, or enter a new value, use + and -.

To actually execute the command, press

RETURN

Dialing		
Dial Number		
Dial Tagged List		
Hang Up		
Answer Phone		
Dialing Type	Pause	
Number of Dial Attempts		1
Rings Before Answering		0
Phone # 1:	555-9087	1200-8-N
Phone # 2:	555-7634	1200-8-N
Phone # 3:	555-4354	1200-8-N
Phone # 4:	555-5555	1200-8-N
Phone # 5:	555-6554	300-8-N
Phone # 6:	555-4321	1200-8-N
Phone # 7:	555-7560	1200-8-N
Phone # 8:		
Phone # 9:		
Phone #10:		
Save Current Configuration to Disk		
Load New Configuration From Disk		

Dial Number

Provided your modem can dial, use this command to dial a number directly without entering it in the phone number list.

To dial a phone number directly, press

RETURN

PaperClip III will ask

Phone number

Enter the phone number. You may enter up to 14 characters. During dialing, PaperClip III will dial each digit in turn, pausing for 2 seconds when a comma is encountered. The letters A, B, C, D, are considered valid digits, and will be dialed if a touch tone modem is in use.

Some systems require that the calling modem provide the initial carrier. If an R is included in the number, PaperClip III will dial in answer mode. An I will cause the modem to go on-hook for 1/10 second when it is encountered in the dial sequence. Other letters and symbols will cause the phone number to be ignored.

Once you have entered the correct number, press

RETURN

PaperClip III will cause your modem to dial the number. During the actual dialing, the tab line will display **Dialing: CONTROL = abort.**

To abort while PaperClip III is still dialing the number, press

CONTROL

The modem will immediately cease dialing and hang up.

Once dialed, PaperClip III waits for a carrier detected indication from the modem. While it is waiting for the carrier, the message

Waiting: RETURN = online; CONTROL = abort

will be displayed.

To quit while waiting for a carrier from the remote end, press

CONTROL

PaperClip III will hang up the modem, cancelling the call.

To ignore the presence or absence of a carrier during the wait for carrier detect, proceeding immediately to online mode, press

RETURN

PaperClip III will proceed to the online mode, by-passing the wait for a carrier indication. If you are using a modem which does not supply a carrier detect signal to the computer (early Commodore 1660), this is how you get online.

If 30 seconds pass without carrier detection, and **RETURN** hasn't been pressed, PaperClip III will cancel the call and hang up.

When PaperClip III detects a proper carrier signal, it displays the message

Connect: Press RETURN or CONTROL

If the speaker in your monitor is hooked up, you will hear a beeping tone. This alerts you that a connection has been established, as you may have stepped away from the computer during the wait for the call to get through. If you find the sound distracting, turn the volume setting on the monitor down. To disconnect from the remote system, press

CONTROL

To acknowledge the modem link, press

RETURN

The **Dial Number** function can be used to switch directly from a voice call to online. Position the highlight bar, then press

RETURN **RETURN** **RETURN**

PaperClip III will immediately switch to online, causing the modem to 'pick up the extension'. Now hang up the voice phone. When the person at the other end instructs his modem to 'answer' the phone, then hangs up his handset, you will have switched from voice call to modem link without hanging up. Remember, one end must pretend to originate the call, the other to answer. Which modem does which is not important when switching from voice. Just be sure the other person knows which function to invoke.

Dial Tagged List

Once you have made several entries in the phone number list, each can have a **tag** set (see **Phone #** below). PaperClip III can dial each tagged number in turn until a successful connection is made.

To dial the currently tagged numbers, position the highlight bar, then press

RETURN

PaperClip III will start with the first tagged number. The number will be dialed, then PaperClip III will wait for a carrier. If no carrier is sensed after 30 seconds, PaperClip III will hang up, then dial the next tagged number. Each number will be tried in turn, cycling through the list. To cancel tagged dialing, press

CONTROL

When a successful connection is made, and the carrier sensed, PaperClip III will display

Connect: Press RETURN or CONTROL

If the speaker in your monitor is hooked up, you will here a beeping tone. After one minute, PaperClip III will hang up, assuming you have left the room. To go online, press

RETURN

After connecting with a carrier, the tag for that phone number will change from an asterisk to a dash. During tagged dialing, the **Number of Attempts** setting is ignored.

Note: Tagged dialing won't work with modems which don't signal carrier detect (early Commodore 1660 modems).

Hang Up

While online, with a carrier present, this function can be used to quickly hang up, disconnecting from the other computer. If a carrier is not present, PaperClip III will not attempt to hang up. To hang up immediately, disconnecting from the remote system, press

RETURN

PaperClip III will issue the hang up instruction to the modem. If the modem is a directly controlled on-hook/off-hook type (1650, 1660, Mighty Mo, HesModem II), PaperClip II switches to on-hook.

For the Commodore 1670 and Hayes modems, the **DTR** signal will be switched to false. After 1/10 second, if neither carrier detect nor **DSR** has fluctuated, PaperClip III will send the escape code +++ . After 1 1/2 seconds, if carrier detect is still unchanged, PaperClip III will send the **ATH** command. Finally, **DTR** is switched back to true.

Note: You cannot hang up when using a modem which does not provide a carrier detect signal (early Commodore 1660's).

Answer Phone

This function is used to cause the modem to go immediately online in answer mode, producing an answer tone. **Answer Phone** can be used to switch directly from a voice call to online. Position the highlight bar, then press

RETURN

PaperClip III will immediately switch to online, causing the modem to 'pick up the extension'. Because the modem is set to answer mode, you will hear a shrill tone from the handset. Hang up the voice phone. When the person at the other end instructs his modem to 'dial' the phone without a number, then hangs up his handset, you will have switched from voice call to modem link.

Remember, one end must pretend to originate the call, the other to answer. Which modem does which is not important when switching from voice. Just be sure who is doing which.

If another computer has called you, use this function to answer the ringing phone. The modem will go off hook in answer mode, providing a carrier to the calling modem.

Note: Be sure the caller is a computer. The carrier is quite harsh; if a person is calling, this can be annoying.

Dialing Type

PaperClip III can use either tone or pulse (rotary) dialing. Set this according to the capabilities of your modem and your telephone service. In order to use tone dialing, you must have touch tone telephone service, and your modem must have tone dialing capability. PaperClip III supports tone dialing on Commodore modem1200/1670 and Hayes modems.

Select the correct setting with + and - .

Number Of Dialing Attempts

When dialing a phone number using either **Dial Number**, or **Phone #**, PaperClip III will re-try for the number of attempts shown here. There is a short delay between re-tries to allow for settling of the phone exchange equipment, and to provide some chance for a caller to get through.

Adjust the setting with + and - .

Rings Before Answering

When connected to a modem which can sense and signal ringing, PaperClip III can answer the phone automatically. Use this setting to indicate how many rings to delay before answering. A setting of 0 means don't answer. Rings from separate calls will not accumulate. If no rings are detected for 10 seconds, PaperClip III will start counting from zero again.

Adjust with + and - .

Phone # x

PaperClip III can hold ten phone numbers in this list. Each number is stored with the communications settings in use when the number was entered. Each number can be dialed directly, or tagged to be dialed in sequence.

To enter a new phone number, position the highlight bar over the entry to be changed, then press

 (or )

PaperClip III will ask

Phone number?

Enter the phone number. You may enter up to 14 characters. If you are resetting the phone number in order to update the associated settings, press



to redisplay the old phone number.

During dialing, PaperClip III will dial each digit in turn, pausing for 2 seconds when a comma is encountered. The letters A, B, C, D, are considered valid digits, and will be dialed if a touch tone modem is in use.

Some systems require that the calling modem provide the initial carrier. If an R is included in the number, PaperClip III will dial in answer mode, issuing a carrier immediately. An I will cause the modem to go on-hook for 1/10 second when it is encountered in the dial sequence. Other letters and symbols will cause the phone number to be ignored.

Once you have entered the correct number, press

RETURN

PaperClip III will store the phone number in the list. The settings currently in use for baud rate, parity, word length, duplexing, communication type, auto-line feed and line-feed generation will be saved with the number. The new number will be displayed in the menu, with the selected baud rate, word length and parity shown to the right.

To dial a selected phone number, press

RETURN

PaperClip III will instruct your modem to dial the number. While dialing, the tab line will display

Dialing: CONTROL = abort

To quit while PaperClip III is dialing, press

CONTROL

The modem will immediately hang up.

Once the number has been dialed, PaperClip III waits for a carrier detect signal from the modem.

The message

Waiting: RETURN = online;CONTROL = abort

will be displayed while waiting for the carrier.

To hang up while waiting for a carrier from the remote end, press

CONTROL

To ignore the presence or absence of a carrier and proceed immediately to online mode, press

RETURN

PaperClip III will ignore the absence of carrier, going online immediately. If you are using a modem which does not supply a carrier detect signal (early Commodore 1660), this is how you get online.

If 30 seconds pass without carrier detection, and **RETURN** is not pressed, PaperClip III will hang up. If the number of re-tries specified in **Number of Dial Attempts** has not been reached, PaperClip III will dial the number again.

When PaperClip III detects a proper carrier signal, it displays the message

Connect: Press RETURN or CONTROL

If the speaker in your monitor is hooked up, you will hear a beeping tone. This alerts you that a connection has been established. To proceed online, press

RETURN

To tag the number for inclusion in the **Dial Tagged Number** function, press

T

An asterisk symbol will appear beside the number. If this number is dialed during tagged dialing, and connection to the remote system is made, the asterisk will be replaced with a dash.

To untag the phone number, press

T

a second time.

SAVE CURRENT CONFIGURATION TO DISK

This command will save the current configuration on disk, including all menu selections, phone numbers, screen colors, etc. This is the same command available in the PaperClip III **Main Menu**.

Move the highlight bar down to **Save Current Configuration**, and press

RETURN

PaperClip III will ask

File name?

You may save any number of configurations. If you want the current configuration to be automatically reinstated on start up, choose the **pci11 configure** default by pressing

RETURN

The question

Drive number?

appears next. Enter the drive number where your start up copy of the PaperClip III disk is and press

RETURN

PaperClip III will save the current configuration.

Note: C128 users must save their configurations on a data disk.

LOAD NEW CONFIGURATION FROM DISK

You may have several configuration files saved on disk with different names. To load a specific configuration, press

RETURN

PaperClip III will ask

File name?

Enter the file name of the configuration you want to load. If you want to reload the configuration which was automatically loaded by PaperClip III at start up, choose the name **pci11 configure**.

When you have entered the desired file name, press

RETURN

PaperClip III will load the specified configuration file. It will check for printer file or character set file names; if present it will load them from disk as well. All menu parameters will be restored to those saved in the configuration.

Be careful loading a new configuration while online. The communications parameters will be set to those in the configuration file.

If they are different from those in use, you could be disconnected from the remote computer.

USING COMMUNICATIONS

Described here is the general method used to telecommunicate with a remote computer. Each system will be different — be prepared to spend time learning how the world of telecommunications works. With a little patience, your modem will connect you to a rich variety of information sources.

The first thing to do is find out what information system you want to call. Besides the many commercial services available, there are literally thousands of private systems and bulletin boards available. To subscribe to a commercial service such as Compuserve, you will need a starter information packet containing information you need to use the system. This includes the communication settings to use, the local phone number to call, and information on billing rates and charges.

Many smaller bulletin boards, often operated by local computer user's groups, do not charge callers. These boards offer an excellent way to experiment with telecommunications, and contact others with similar interests. Ask your local dealer what boards are in operation, and who to contact before signing on. It is considered polite to call the board operator by voice before using his system, although this varies from board to board. Common settings for these boards are 300 baud, 8 bits, no parity.

Once you have arranged access to a remote computer, enter the suggested settings into the **Communications Options** menu, then enter the phone number into the list. Now, position the highlight bar over the phone number, and press

RETURN

PaperClip III will dial the number, then listen for a modem carrier. If a modem answers, PaperClip III will announce that a carrier is present, and wait for you to press

RETURN

Now you are online. At this point most remote systems will expect you to type one or two specific keys before responding. If you are not sure what response is expected, try pressing **RETURN** once or twice. When the remote system recognizes your typing, most will present a welcoming message and a short menu.

You are telecommunicating! The remote system doesn't know you are using PaperClip III, or anything else about your computer system. What you type is sent to the other system, and what it sends to you is displayed on your screen.

USING ADVANCED FEATURES

When you have accumulated some experience with a remote system's commands and services, you can make use of the advanced features in PaperClip III's communications mode. You can request something on an interesting subject, then have PaperClip III capture the entire transmission as text. While still online, you can switch to edit mode, save the new text on disk, then switch back online to capture something else. Or prepare a message before dialing, then while online send the text as electronic mail.

For larger text files and programs, you can transmit directly from disk, or download with full error checking and correction. One of the most important features of communications mode is that the full power of the PaperClip III word-processor is just a keystroke away.

To capture received data into text, select **capture** from the **Text Buffer** entry in the **Communications Options** menu. Position the cursor in text properly, the received text will be entered starting at the cursor position. Connect with the remote computer, and prepare it to send the desired text. Just before issuing the command to send the data to you, press

F6

The tab line will change from **Capture** to **Capturing**. All text received will be entered into text as it is displayed on the screen. When the text you wanted to capture has been received, press

F6

PaperClip III will stop capturing. While still connected to the remote computer, you can switch to edit mode, and save the text on disk.

To send text to the remote system, load it from disk, switch to communications, set the **Text Buffer** to **send**, then go online. When ready to send the text, press

F6

PaperClip III will send the text, starting from the current cursor position. While the text is being transmitted, the tab line will show **sending**. If the remote computer requests a pause by sending an XOFF character, the tab line will display **XOFF-WAIT** while PaperClip III waits for an XON character to resume transmission.

Note: While online, switching to edit mode disables the reception of new data. Information received from the modem while in edit mode will be ignored.

Often, text captured from another computer will have been formatted, with a **return** marker at the end of each line. Before you can edit this text easily, you will need to unformat it. Refer to **Unformatting Text**.

CREATING YOUR OWN PRINTER FILE

Creating your own printer file is fairly tedious, and should not be attempted by someone who isn't patient and fairly familiar with computers. You will need your PaperClip III program disk (C128 users will need to use their Dictionary disk).

There are many printer files provided for you with PaperClip III (see **Appendix D**). Even if you do not see your printer model listed, it is possible that your printer functions in a similar manner to one of the printers listed. Experiment for a while to see if one of the existing printer files will suffice.

If you do not find a printer file on disk that optimizes your printer, utilize the Printer File Editor. Be sure to save you document in memory before loading the -print edit overlay. To access the menu, be sure your PaperClip III program disk is in the drive, and enter

, then press *

When you are prompted for **File name?** enter **-print edit 64** (or **-print edit 128**) and press .

The file name **-print edit 64** (or **-print edit 128**) will display on the Tab line. Press F5 and the **Character Set/Printer File Editor** menu appears:

CHARACTER SET/PRINTER FILE EDITOR

Edit Printer File
Edit Character Set
Convert old printer file
Load Printer File
Load Character Set english/french
Save configuration to disk

Edit Printer File

It is often easier to edit an existing printer file than to create one from scratch. When you select **Edit Printer File**. The codes from the currently loaded printer file will display. You can change the codes that need to be altered and leave the others untouched. This greatly simplifies the process of creating a customized printer file.

Use the up and down cursor keys to scroll through all of the printer options available. The printer codes begin with the standard characters, then proceed to special characters, linefeed operations, special emphasis

characters (i.e. underline, boldface, sub/superscript) and then to special printer mode codes (i.e. printer pitches and proportional spacing). Scroll to the end of the printer file to be sure you have not missed any options.

*Be sure to scroll back up to the top of the printer file before saving it or exiting the printer file editor. To exit the printer file editor, press **CONTROL**.*

After editing your printer file, perform the Printer Test to insure that your additions are accurate.

Note: If the codes from your printer manual are correctly entered, yet the printer test is not performing accurately, refer to the Reference section-Printing, for troubleshooting tips or consult your printer manufacturer.

Load Printer File

If you want to edit or convert an existing printer file, select "Load Printer File" and enter the correct printer file name when prompted for File name?

Note: C128 users will need to have the Dictionary disk in the drive if loading one of the printer files provided by PaperClip III.

Convert Old Printer File

This option is provided for veteran users of PaperClip who took the time to create their own customized printer file. When loading a printer file from an earlier version of PaperClip, you will receive an "incorrect file-type" message. Ignore this message and select Convert Printer File (there will be no visible activity during this operation). Now perform printer test to ensure that the file was correctly loaded. Be sure to save the converted printer file to disk (see **Save Configuration to Disk**).

Note: This option merely converts your old printer file to a form that PaperClip III will accept without hanging up your system. Once you have performed the conversion, use the Printer File Editor to fine tune your file. Pay close attention to printer pitches and widths.

Save Configuration to Disk

Whenever you edit your printer file or character set (and want to preserve the changes), you should save the configuration to disk. To do so, position the cursor bar on **Save configuration to disk** and press **RETURN**.

Note: C128 users will need to be sure that there is available space on the disk before saving a new configuration.

The prompt **File name?** will display with the current configuration name.

If the changes you made are permanent, and you want them to be in effect every time you load PaperClip III, enter **pciii configure** and press **RETURN** (if **pciii configure** already appears on the Tab line, simply press **RETURN**).

To save the changes without affecting **pciii configure**, enter another file name and press **RETURN**.

You will then be prompted for Drive Number? Enter the correct drive number and press **RETURN**.

PaperClip will begin saving the configuration. It will ask you **Save printer file?** To save your printer file changes, respond by pressing **Y** **RETURN**. Enter an appropriate name when prompted for File name? Enter the appropriate drive number when prompted for Drive number?

Note to C128 users: Check to make sure there is enough space left on your disk before you attempt to save your configuration.

Next PaperClip III will ask **Save character set?** If you want the character set loaded when you boot PaperClip III, press **Y** and press **RETURN**. Then enter the character set name when prompted for **File name?** and the correct drive number when prompted for Drive number? PaperClip III will then save the new configuration to disk.

View the Disk Directory. Notice that the configuration file, the printer file, and the character set file have all been saved (if you responded by pressing **Y**). You can load each one separately or as a configuration.

CHARACTER SETS

When PaperClip III boots up, it will try to load the character specified by the **pciii configure** file. The english/french file provided PaperClip is the default character set and will remain so until you specify an alternate character set. (If it can't find the configuration file, or the character set is missing or unspecified, PaperClip III will use the Commodore's built-in character set.)

Edit Character Set

To alter the existing character set, access the CharacterSet/Printer File Editor menu. To do so, be sure your PaperClip III program disk is in the drive and press

CONTROL and then enter * **RETURN**

When you are prompted for File name? enter

-print edit 64 (or -print edit 128) and press **RETURN**.

When -print edit 64 (or -print edit 128) displays on the Tab line, and the cursor flashes, press **F5** and the menu appears.

Select "Edit Character Set" by positioning the cursor bar over the option and pressing **RETURN**. The Character Set Editor appears on the screen with instructions for use.

Use the up and down and left and right cursor keys to move through the character set. (C128 users should press space bar to view the italic and superscript characters.)

Position the cursor on the character you want to edit and press Shift > . This moves the character into the Edit window.

Press **RETURN** to move the cursor to the Edit window. Press Space bar to delete a square. Press Shift Space Bar to create a square.

When you are satisfied with the edited character, press **RETURN** to move the cursor back to character set window. Place the cursor over the character you want replaced. Then press Shift < to place the new character in the character set.

To return to the Character Set/Printer File Editor menu, be sure the cursor is back in the character set window and press **F1**.

To save the character set, use the "Save configuration to disk" option. You will be prompted to enter the file name for the configuration (enter pciii configure ONLY if you want this edited character set to load in every time you boot PaperClip III). Enter the appropriate drive number when prompted and press **RETURN**.

The prompt **Save printer file?** will appear. If you want to save the printer file included in the configuration, respond by pressing Y and **RETURN**. When the prompt **File name?** appears, enter the appropriate printer file name and press **RETURN**.

Note to C128 users: You are reminded to make sure there is enough space left on your disk before you attempt to save your configuration.

When PaperClip III prompts **Save character set?** respond by pressing Y and **RETURN**. When the prompt **File name?** appears, enter a new name for the edited character set and press **RETURN**. Enter the appropriate drive number when prompted and press **RETURN**.

Load Character Set

To load a character set for use with PaperClip III, select the "Character Set" option from the Main menu or the "Load Character Set" from the Character Set/Printer File Editor menu. With either option, the prompt

File name? appears. Enter the file name for the character set you want to use, and press **RETURN**.

The character set will load and the character file name appears on the Tab line.

Multilingual Characters

There are 21 keys and corresponding screen symbols which PaperClip III has defined as multilingual. When you press **←** key (C64) or **ESC** (C128) followed by one of these keys

0 1 2 3 4 5 6 7 8 9 + up arrow @ * ; , ? / . =

PaperClip III will display the symbol associated with that key.

If you are using these special keys, be sure that your printer is capable of printing the characters and that your printer file is sending the appropriate codes to your printer.

Note: If the special characters do not display when the appropriate sequence is entered, select "Character Set" from the Main Menu and enter the english/french character set.

USING DOCUMENTS CREATED WITH OTHER WORD PROCESSORS

If you are a veteran PaperClip user or a recent convert from one of those other word processors, we have included a Text Utility to make the transition to PaperClip III as painless as possible.

The C64 version of PaperClip III has more features than prior releases of PaperClip, and therefore, there is less text space available per document. While this is not a problem when creating new documents with PaperClip III due to the variety of easy to use document linking commands, you may find that long documents created with earlier releases of PaperClip will not load.

If you receive the message, "Out of text memory." when loading an old document, PaperClip III does not have enough room to load in your entire document. The Text Utility will automatically divide your document into separate sections and link them together with the next document command (nx:).

To use the Text Utility, make sure the PaperClip III program disk is in the drive, and press

CONTROL, and then enter * **RETURN**

The prompt **File name?** will appear. Enter

-utility 64 and press **RETURN** (C128 users, type -utility 128)

The name "-utility 64" (or -utility 128) will appear in the Tab line. Press **F3**. The PaperClip Text Utility menu will display:

PaperClip Text Utility

Disk Drive Arrangement	One(Dual)
Disk Drive Device Number	8
Text Source Drive	0
Text Destination drive	0
Text Source Format	PaperClip
Auto-scratch of source	Off

Perform Document Conversion

In order to perform the document linking, you need tell PaperClip your disk drive arrangement, device number, and the location of the Source and Destination.

Use the up and down cursor key to move through the menu options. Use the left and right cursor key to change the values.

Disk Drive Arrangement

Set this option to One Dual if you have a single disk drive or a dual disk drive. Change the value to Two Single if you are using two disk drives.

Disk Drive Device Number

Set this option according to the device number that accesses your disk drive. The default value is 8.

Text Source Drive

This option tells PaperClip where to find the original document. If you have a single disk drive, this option should be set to 0. If you have a dual drive, or two singles, and the disk containing your original document is in the second drive, set this option to 1.

Text Destination Drive

This option tells PaperClip where to place the converted document. If you have a single disk drive, this option should be set to 0. If you have a dual drive, or two singles, and you want the converted document saved onto the disk in the second drive, set this option to 1.

Text Source Format

This option tells PaperClip the format of your original document. If you are converting a document from a previous version of PaperClip, leave this option set at its default, PaperClip.

If you are converting a document created with another word processor so that you can use it with PaperClip III, change the value to reflect the format used by your previous word procesor.

Many word processing programs save their files in a unique format. PaperClip III requires sequential files with petascii or true ASCII characteristics without embedded control characters.

Note on WordWriter 3 files: To use documents from Wordwriter 3, first use the Convert program provided in the Wordwriter 3 package to convert the document to petascii, then select Commodore as the Text Source Format within the Text Utility. To attempt a Wordwriter 3 file conversion without first converting the Wordwriter document to petascii will result in a "file type mismatch" error.

Note about Bank Street Writer files: When converting files created with Bank Street Writer, set the Text Source Format to Commodore. When asked for the Source file name? enter the name of your document and add an asterisk to the end of the file name. For example, if your Bank Street Writer document was named DOC1 , enter DOC1* when asked for the source file name.

Auto-scratch of Source

This option gives you the option of saving or deleting the original document. If you want to save your original document, leave the default setting of OFF. If you no longer have a use for the original document, set the option to ON.

Note: It is best to leave this option turned OFF until you are familiar with the conversion process and confident in the correct settings.

Perform Document Conversion

When you have all the options set correctly, position the cursor bar over "Perform Document Conversion" and press .

You will be prompted for Source file name? Enter the name of the original document. (Be sure to adhere to upper and lower case letters.) Press .

You will then be prompted for Destination file name? Enter the name for the converted file and press .

Note: Be sure the Destination file name does not already exist on the disk. If it does, you will recieve a "file exists" message. You are

given the opportunity to replace the existing file as in most PaperClip functions.

As PaperClip performs the conversion, the document will appear on the screen. The number -001 will be added to the file name. When the document fills up memory, PaperClip will insert the appropriate link command and begin a new document, with the same file name and the number -002 added to the file name. This process will continue until the entire document has been properly converted and linked. The PaperClip Text Utility menu reappears when the conversion is complete.

Press **FS** or **CONTROL** to exit the menu. View the Disk Directory to confirm that the converted files have been saved, and to review the names of the linked documents.

If you are unsuccessful at converting documents, check the following:

Make sure that you are entering the correct file name (upper/lower case and spacing are important).

Be sure the Destination file name does not already exist on the Destination disk.

Check to see that the Destination disk is not write-protected.

When attempting conversions from other word processors, be sure that the Source format is correct. If you are uncertain of the format used in the word processor, consult the user's manual or software publisher.

SPELLING CHECKER

PaperClip III contains a high-speed spelling checker and correction system. It will scan your entire document, comparing each word with a large dictionary. After checking the text, each word in text for which there was no match in the dictionary is displayed.

If the word displayed is correctly spelled, such as a person's name, you can tell PaperClip III to simply skip on to the next word. When such words appear often, PaperClip III can be "taught" to ignore that word. Further occurrences will not be presented as incorrect.

When PaperClip III displays a genuine spelling error, you can correct it on the spot. The correction will replace the mistake instantly.

The spelling checker's dictionary contains about 38,000 entries. While this is enough to cover most commonly used words, everyone will have some favorites which have not been included in the dictionary. You may add your own words to the dictionary, limited only by the amount of disk

space. Using a 1541 disk drive, you can have approximately 50,000 words. With a 1571 drive, the dictionary could be increased to around 100,000 words. Of course, this will depend on the actual words you choose.

The Spelling Checker is designed to be fast as possible. Checking time depends on the size of the document, and the range of words used. Using a 1571 drive, the time to check a **document** will usually be under a minute.

The program consists of two components — the spell check mode built-in to PaperClip III, and the Dictionary disk. Since you can add words to the dictionary, you can customize it to suit your needs.

USING THE SPELLING CHECKER

Before using the program, make sure the **Dictionary Device Number** setting in the **PaperClip File Options** menu matches your equipment configuration and the document you want to check has been loaded into memory. Then, load the PaperClip III program disk to the disk drive (if it is not already there) and select **Check Spelling** from the Main Menu. (Press **RETURN** again to confirm when the prompt appears.)

You will be prompted to insert your Dictionary disk and press **RETURN**. Spelling Checker will begin comparing the words in your document with the words in the dictionary.

If no errors were detected after the entire text has been checked, the tab line will display some statistics, including the number of words checked.

In most cases, the first suspect word will be highlighted in text. The tab line will prompt

Not found:

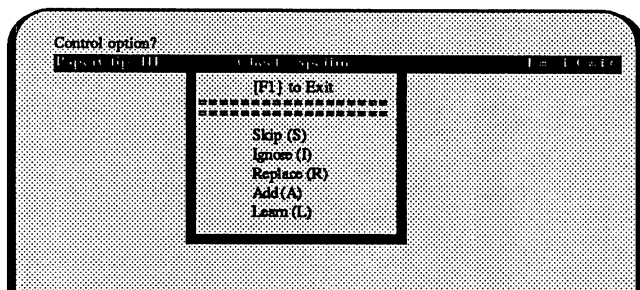
followed by the suspect word. You have several choices here.

If you want to quit the spelling checker and continue normal editing, press

CONTROL

During the rest of the spelling correction process, you may use either the keyboard commands or the Spelling Checker menu to control the program. To display the spelling checker's usage menu, press

F1



You can use this menu simply to remind yourself of the functions available, or you can highlight the command you need and press

RETURN

The program allows you to skip a word, correct a spelling, or enter a replacement word. You may also view a list of **suggested** replacement words. The Spelling Checker correction options are:

Suggest

To request suggestions for replacement words, press **[F1]** (or **[F2]**). The message **Fetching dictionary** will appear, followed by Suggest; and then the words as close as possible to the incorrect word will appear. The **[F1]** key moves you forward or backward through the dictionary.

Skip

To skip over the current occurrence of a word, press S or select **Skip** from the corrections menu,

Ignore

To ignore all occurrences of the word, press I or select **Ignore** from the corrections menu. This is useful when you have a unique spelling (for example, Quik) throughout your document but do not want to add the word to your dictionary.

Replace

To replace a word, press R or select **Replace** from the menu.

Enter the replacement word. Be aware that PaperClip III will not check the spelling of the new word. It is up to you to enter the correction properly. When the replacement has been entered correctly, press

RETURN

PaperClip will ask if you want to replace all occurrences. Answer Y or N. The new word will replace the original, and PaperClip III will display the next misspelled word.

Add

If the displayed word is correctly spelled, you may add it to the dictionary by pressing

A

PaperClip III will display the message

Fetching dictionary

When the referenced dictionary file has been read, the new word will be added to the dictionary. After adding the word, PaperClip III will move on to the next suspect word.

When adding new words, the message

Updating dictionary

will appear occasionally. PaperClip III is inserting the new words into the dictionary on disk.

Learn

If the misspelled word is one you often enter incorrectly, you may elect to add the wrong word, and its correct replacement, into the Spelling Checker's auto-expander. Then, each time you type the misspelled word, it will be instantly replaced with the correct spelling. To learn the misspelled word, press L. The question

Replace with?

appears on the tab line. Enter the correct word to be substituted for the mistaken entry, then press .

This process will continue until every word not found in the dictionary has been examined. The tab line will display the following statistics:

Checked:xxxx Found:xxxx Added:xxxx

Note: Legitimate words used out of context will not be detected. For instance, if you write "I met a bare in the woods yesterday" PaperClip III will simply assume you know what you're talking about and pass over the error.

Note: The dictionary disk is used constantly during the spell checking process. For this reason, always have several backups made. In addition, backup the dictionary disk any time you add many new words.

ADDITIONAL SPELLING CHECKER OPTIONS

To view additional options, press **[C]** , then **C** and these options appear:

Check spelling of document

To have the entire document checked for spelling errors, select this option. PaperClip III will immediately start comparing the words in your document with the dictionary's contents.

Auto-checker (C128 RAM version only)

If you are using a Commodore 128 computer with a Commodore memory expansion cartridge (such as the 1750 Ram Expansion), PaperClip can automatically check each word you type against the entire program dictionary - as you type!

If you have the memory expansion card installed and PaperClip III is set up for it, you may turn this feature on and off by highlighting this entry, then pressing either **+** or **-**.

If you do not have a memory expansion cartridge installed, this entry will be shown as **N/A**, for not available.

Type Ahead

When turned on incorrect words are displayed on the tab line but you can continue to type without making corrections.

Bell

If you want PaperClip III to ring a bell every time it notices a spelling error, turn this option on.

Auto-expander/corrector

When you turn on this option by highlighting the entry and pressing **+** PaperClip III will check every word you type for a match with the expansions list. If there is a match, the word you typed will be replaced with its substitute.

The expander is sensitive to the case of the original word typed in. If the trigger word was entirely entered in lower-case, the substitute will appear that way too. If only the first letter of the trigger word is capitalized, the first letter of the substitute will be capitalized. If the first two letters of the trigger word are upper-case, the entire substitute will be inserted using upper-case only.

Here are some examples of how the expander would work with the trigger word "PC" and an expansion of "paperclip".

```
pc  ---> paperclip
Pc  ---> Paperclip
PC  ---> PAPERCLIP
```

Expansion trigger words must be two or more letters long, and cannot contain characters other than alphabetic letters. To see the current list of expansions, and be able to make changes and additions, use the command **Edit new replacement list**.

Bell

If you want PaperClip III to ring a bell every time it makes a substitution, turn this option on.

Edit Expansion List

If you want to view the expansions list, or make changes to it, use this option.

Note: Make sure that you do not have a document present in memory when using this function. It transfers the entire expansion list into the text area, obliterating any existing text.

The expansion list has the following form:

```
"trigger" = "expanded substitute text" return marker "source" =  
"translation" return marker "pc" = "paperclip" return marker
```

Usually, both the trigger and its translation would be entered entirely in lower case. If you have an expansion which must always have capitals, enter it that way when setting up the translation text. The following are some examples of valid expansion list entries:

```
"pc" = "paperclip" return marker "pcx" = "PaperClip III, with built in as-  
you-type expansion and dynamic program overlays" return marker  
"abcdefghijk" = "xyz" return marker "recieve" = "receive".
```

The trigger can not be more than one group of letters. The expansion can be as little as one character, or cover several lines on the screen, including return markers, formatting symbols, etc.

The trigger must appear at the beginning of a line, surrounded by quotes. It must be followed by an equal sign, then the entire text of the expansion, again surrounded by quotes. The first trigger must appear on line 1 in text.

Create New Expansion List

Once you have entered or edited your set of expansions, use this command to have PaperClip III analyze and digest the expansion list. It will check the expansion list for missing or extraneous characters, then convert the entries to the special internal format it needs.

PaperClip III cannot absorb an expansion list that requires more than about 2000 bytes when stored. If you create a list which is too big, you will have to delete one or more entries, or divide the list between two or more separate expansions files. Only one expansions file can be loaded at a time, and each new list loaded replaces the previous list. When PaperClip III starts up, it looks for an expansions list called 'pciii expansions'. If it is present on the disk, it will be automatically loaded

Save Expansion List to Disk

After you have altered the expansions list, and created a new one in memory, use this command to save a copy of your new list on disk. To have your new list automatically retrieved each time PaperClip III starts up, use the name 'pciii expansions'. You may use any other filename you wish, but PaperClip III won't fetch it during startup.

Load Expansion List from Disk

Replaces the current expansions list with one stored on disk. The newly loaded list will displace the one previously in memory, which will be erased. Be sure the list in memory has been saved on disk before loading a new list.

Save Dictionary to Disk (C128 with Expansion only)

When using the Spelling Checker with a Commodore 128 computer which has a Ram Expansion cartridge attached (such as the Commodore 1750 Ram Expansion), the contents of the Spelling Checker dictionary are copied into the memory expansion cartridge. This allows document spell checks to proceed very rapidly, and yields the additional benefit of as-you-type spell checking. When you update the dictionary by adding or deleting words, only the copy of the dictionary in the expansion cartridge is modified.

To preserve your changes on disk, use this function. You can elect to overwrite the previous dictionary disk contents, or use an empty but formatted disk. We recommend using the second approach, as it furnishes a new dictionary disk, leaving the previous dictionary disk unaltered, which can then serve as a backup copy of the dictionary.

EXTENDED VERSION OF CHECK SPELLING

To use additional checking parameters, load the document to be checked into text, using the **CONTROL** L command. Be sure the **-spellcheck overlay** is currently in memory, then press

CONTROL Y

PaperClip III then asks

Linked Documents?

If you select N, it asks

Delete words from dictionary?

If you select N, it will ask you to insert the dictionary disk into the proper drive with the prompt

Insert dictionary disk and press return

If you want to return to editing immediately, without checking spelling, press

CONTROL

When the dictionary disk has been properly inserted into the drive, press

RETURN

PaperClip III will check the disk in the drive. If it is not a valid dictionary disk, the prompt asking for the dictionary will reappear.

PaperClip III will begin to check the spelling. The document will be scanned several times, each pass checking longer and longer words. The indicator

Checking:

on the tab line displays the word being checked. A **checkmark** (✓) symbol next to the word indicates it was found in the dictionary. This happens quite quickly, don't worry if some words seem to be skipped — they haven't.

If you are checking a **linked document**, (remember to "Save" your current document before using the linked document commands), press

Y **RETURN**

PaperClip III will ask for

File name?

Enter the name of the first file in the chain to be checked, then press

RETURN

The prompt

Insert dictionary disk and press return

will appear.

Note: Spell checking linked documents will only work with two-drive systems or C128 with RAM expansion. C64 users must designate Drive 8 as the dictionary disk drive.

Note: If you receive a **File not found** message when you begin your spell checking, save the current file and then press **CONTROL** Y and repeat the procedure above.

USING THE SPELLING CHECKER WITH A RAM CARTRIDGE

Spelling Checker can take advantage of the Commodore 1750 RAM Cartridge. To use it with Paperclip III, plug it in before turning the computer on. If you are using a Commodore 128 with the RamCard version of PaperClip III, it will automatically configure the memory for use during the first spell check.

When checking the spelling of the first document, a copy of the dictionary used will be stored in the RAM cartridge. Subsequent spell-checks will use the dictionary in the cartridge. This significantly accelerates the checking process.

Note: When using RAM to check spelling, words added to the dictionary are only saved to disk and are not loaded into RAM at that time.

MAINTAINING THE SPELLING CHECKER DICTIONARY DISK

Your dictionary is flexible — you can tailor it to your particular field. It's important to keep and maintain backups of your dictionary disk as you build on it — the more words you add, the more irreplaceable it becomes.

Occasionally you may add an incorrect word to the dictionary. If you haven't added many words since the last backup, use the backup and add words to re-create the dictionary. If that isn't possible, PaperClip III provides a method for removing unwanted words directly. Be careful, backup the dictionary disk before starting.

To remove incorrect or unwanted words, erase all of text. Then type in the word or words you want to delete from the dictionary. Start up Spelling Checker in the normal way. When the question

Delete words from dictionary?

appears, answer

Y **RETURN**

PaperClip III will immediately display the prompt

Remove?

To quit without removing words from the dictionary, press

CONTROL

To skip to the next word, leaving this entry in the dictionary, press

I

To delete the displayed word from the dictionary, press

D

The message

Fetching dictionary

followed by

Updating dictionary

will appear. When the word has been removed from the dictionary, the next word in text will be highlighted.

APPENDIX A: COMMAND SUMMARY

SCREEN DISPLAY

Change screen colors
Change character set
Word wrap on/off
Change line length

F1
F7
F6
CONTROL SHIFT L

BASIC EDITING

Delete to left of cursor
Delete to right of cursor
Control mode
Embedded command mode
Function mode

SHIFT DEL
SHIFT ←
CONTROL
← (C64) EBC (C128)
£

EDITING COMMANDS ON THE TAB LINE

Screen-read cursor characters
Restore previous entry
Clear entry
Restore original default entry

RUN STOP
SHIFT RUN STOP
SHIFT CLR HOME
TAB

CURSOR MOVEMENT

Move cursor up in text
Move cursor down in text
Move cursor left in text
Move cursor right in text

SHIFT ↑ OR ↑ (C128)
↓ OR ↓ (C128)
SHIFT ← OR ← (C128)
→ OR → (C128)

Rapid scroll up in text
Rapid scroll down in text
Pause during rapid scroll

CONTROL SHIFT ↑
CONTROL ↓
SPACE

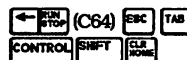
Move to top left of screen
Move to top of text
Move to bottom of text
Move to beginning of next line
Move down one screen (22 lines)
Move up one screen (22 lines)
Set Bookmark (C128 only)
Move to Bookmark (C128 only)

CLR HOME
CLR HOME CLR HOME
SHIFT RUN STOP
SHIFT RETURN
F3
SHIFT F4
EBC RUN STOP
RUN STOP

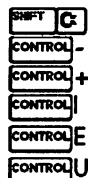
Set/Clear tab at cursor column
Set/Clear numeric tab in cursor column
Move to next tab setting

SHIFT CLR HOME
CONTROL N
RUN STOP (C64) TAB (C128)

Move directly to next numeric tab
Clear all tab settings

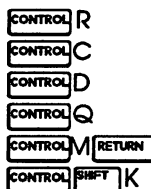


Insert Mode on/off
Delete line cursor is on
Insert line at cursor position
Insert multiple lines
Erase text
Unformat text (C128 only)



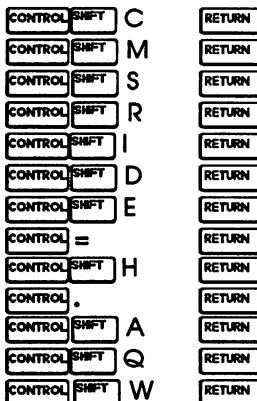
RANGES

Set range
Copy range
Set and delete range
Save range
Move range
Change case in range



COLUMNS

Set column
Move column
Shift column
Repeat column
Insert spaces before column
Delete column
Erase column
Add column
Add row
Set Decimal point
Sort column
Define field separator
Fill column with separator



SEARCHING TEXT

Search and replace
Find search string
Hunt for current search string



SPECIAL PRINTING

All Special Printing commands are preceded by a control key.
For Commodore 64 users that key is [C]. For Commodore 128 users, the key is [EBC].

Underline on
 Underline off
 Underline spaces
 Boldface on
 Boldface off
 Italics on
 Italics off
 Superscript next character
 Superscript on
 Superscript off
 Subscript next character
 Subscript on
 Subscript off
 Hard space
 Conditional hyphen
 Conditional breakpoint
 Send user-defined character to printer

← or ESC SHIFT [
 ← or ESC SHIFT]
 ← or ESC ,
 ← or ESC SHIFT (
 ← or ESC SHIFT)
 ← or ESC SHIFT <
 ← or ESC SHIFT >
 ← or ESC SHIFT #
 ← or ESC SHIFT %
 ← or ESC SHIFT \$
 ← or ESC SHIFT !
 ← or ESC SHIFT '
 SHIFT space
 ← or ESC -
 CONTROL SHIFT ;
 ← or ESC & digit

OUTPUT

Printer output
 Printer output (default settings)
 Video output
 Video output display width
 Restart output
 Print previous page
 Display previous page again
 Switch to printer output
 Switch to video output
 Switch to continuous output
 Switch to discontinuous output
 Select parallel printer output
 Select RS232 output
 Set printer device number

CONTROL ○
 CONTROL SHIFT ○
 CONTROL V
 SHIFT F8
 CONTROL SHIFT P
 R (at page break)
 A (at page break)
 P (at page break)
 V (at page break)
 C
 D
 F1 F1
 F1 F1
 F1 F1

FILE HANDLING

Save document
 Save range
 Sequential file
 Load document
 Append (insert) file
 Abort loading
 Disk directory for drive 0
 Disk directory for drive 1

CONTROL S
 CONTROL Q
 CONTROL Z
 CONTROL L
 CONTROL A
 CONTROL
 CONTROL 0
 CONTROL 1

Select disk load speed
 Send disk command
 Format disk
 Validate disk
 Read disk drive error message
 Set disk device number
 Set dictionary device number
 Select disk drive arrangement
 Global file copy

CONTROL SHIFT &
 CONTROL SHIFT >
 CONTROL SHIFT >n0:diskname,ld
 CONTROL SHIFT >v0
 CONTROL SHIFT <
 F1 F1
 F1 F1
 F1 F1
 CONTROL G

MAIL MERGE (FORM LETTERS)

Variable data separator
 Insert variable block into text
 Move to next variable block
 Fill next variable block from data file
 Fill all variable blocks from data file
 Empty all variable blocks
 Close current data file, open another

+ [F] OR EBC [F]
 CONTROL B
 CONTROL SHIFT F
 CONTROL SHIFT B
 CONTROL SHIFT V
 CONTROL SHIFT N
 CONTROL SHIFT Z

TELECOMMUNICATIONS

Telecommunications Mode on/off
 Control Menu
 Dialing Options Menu
 Erase menu from display
 Select menu entry
 Change setting in menu

F5
 F1
 F3
 CONTROL
 + -

SPELLING CHECKER

Invoke spelling checker
 Skip to next word
 Skip and ignore further occurrences
 Correct spelling
 Add word to dictionary
 Delete word

CONTROL Y
 S
 I
 R
 A
 D

APPENDIX B: SUMMARY OF FORMAT DIRECTIVES

ENTERING FORMAT INSTRUCTIONS

The checkmark begins each line of format instructions. It is produced by pressing the **F** key. If several instructions are included on one line they are separated by colons (:).

Paperclip III scans the first two letters of each instruction, then skips forward looking for either a space or a digit. Once it finds a space, it can accept either a digit or the words **on** or **off**. This allows for several variations in instruction format — any instruction can be turned on or off by **1** or **0** or **on** or **off** preceded by at least one space. The first two letters in the instruction are all that count in terms of PaperClip III identifying the option you're referring to.

You can say

✓enter on+ or **✓cn1+**

and

✓lmargin 10+ or **✓lm10+**

FORMAT COMMAND SUMMARY

INSTANT PHRASES

Assigns the letter **x** to an instant phrase. An instant phrase cannot be longer than one text line. **✓x=phrase+**

BASIC FORMATTING

Centering on	✓cn on+ or ✓ce on+
Centering off	✓cn off+ or ✓ce off+
Justification on	✓ju on+
Justification off	✓ju off+
Right alignment on	✓ra on+
Right alignment off	✓ra off+
Right justification on	✓rj on+
Right justification off	✓rj off+
Double height printing on	✓dh on+
Double height printing off	✓dh off+
Proportional printing on	✓pr on+
Proportional printing off	✓pr off+

Insert x blank lines in output	✓lnx+
Set print spacing to x lines	✓spx+
Set line spacing to x lines per inch	✓lsx+
Set print pitch to xx	✓ptxx+
Set header pitch to xx	✓phxx+
Set footer pitch to xx	✓pfix+

MARGINS

Set text left margin	✓lmx+
Set text right margin	✓rmxx+
Set header left margin	✓hlxx+
Set header right margin	✓hrxx+
Set footer left margin	✓flxx+
Set footer right margin	✓frxx+
Lock header and footer margins	✓ml on +
Unlock header and footer margins	✓ml off +
Adjust relative left margin	✓lm+x+ or ✓lm-x+
Adjust relative right margin	✓rm+x+ or ✓rm-x+
Next paragraph margin adjust	✓ma+x+ or ✓ma-x+
Automatic indentation	✓ai+x+ or ✓ai-x+

PRINT POSITIONING

Paper length	✓ppxx+
Page size	✓pgxx+
Vertical positioning	✓vpxx+
Printer offset	✓ofxx+
Force new page during printing	✓fp+
Force new page if insufficient space	✓fpxx+
Inter-paragraph spacing	✓ipx+
Alternate page printing	✓apx+
Top margin	✓tmx+

HEADERS AND FOOTERS

Set header x lines above text	✓hdx:left,middle,right+
Set footer x lines above end of paper	✓ftx:left,middle,right+
Insert current page number	<> or ↑p
Set current page number to x	✓p#x+
Insert current chapter number	[] or ↑c
Set current chapter number to x	✓chx+
Adjust chapter number by x	✓ch+x+ or ✓ch-x+
Mirrored header on	✓mh on +
Mirrored header off	✓mh off +
Mirrored footer on	✓mf on +
Mirrored footer off	✓mf off +

Mirrored header off	✓mh off +
Mirrored footer on	✓mf on +
Mirrored footer off	✓mf off +

FILE LINKING

Global file link at end of text	✓nx:filename+
External file link from control file	✓ex:filename+
Non-specific global file link	✓k+

OUTPUT

Pause during output with prompt	✓ps:prompt text+
Define digit x to user defined value y	✓x=y+

CREATING A TABLE OF CONTENTS

Define contents file name on drive x	✓tf:x:filename+
Define table of contents entry	✓tb:entry+

OUTLINING

Outline paragraph	✓ol:
Outlining off	✓ol0+
Select outlining level	✓ol+1+ or ✓ol-1+
Specify outline format	✓ol+1,i,o,m+ where i specifies the indentation, o specifies the first line's outdent and m specifies the label mode

APPENDIX C: SUMMARY OF ERROR MESSAGES

Column not set

A Column function was selected and no Column had been set. Set the Column and select the function again.

Error: Device not present

When an attempt was made to send information to the disk drive or printer (for example, saving a file), the device did not respond and was deemed to be "not present". Make sure that the disk drive and printer are turned on and connected to the computer properly. Also make sure that the device numbers in the system are the same as the ones which PaperClip III is using.

Directory Error 71

This disk error indicates that your disk drive is "confused." Remove your diskette from the disk drive and turn the drive off, then on, and reinsert your disk.

Special Note to 1541 Disk Drive Users: When replacing a file you may receive a disk error 71 message. If you get such a message, remove the disk from the drive immediately and turn the drive off and on. Then put the disk back in the drive and save the file again. When performing Search and Replace on Linked Files, the disk error 71 message may flash too quickly to be seen. If the message "Replace ended" appears prematurely, follow the procedure above.

Error: External device timeout

When the computer tried to get information from the disk drive (for example, loading a file) the disk drive did not respond in time. This is a "timeout". It usually is an indication that the device is not present but there may be other problems. Follow the procedures for "Device not present" error above.

No text to save

An attempt was made to save a text file when there was no text in memory. This will not apply to the Range Save.

Out of text memory

When doing an insert function of some sort and it was necessary to insert a line, this error will be generated if the last line of text is used. In other words no line could be inserted without destroying text. This can also occur during a file load or file append if the incoming file cannot fit into the text memory.

No tab stops set

The tab key was pressed when there were no regular or numeric tabs set. Set up your tabs beforehand.

No search string

A Search and Replace function was called and the search string did not contain any characters. A "null" search string cannot be searched for. Set up your search string properly.

Out of Variable Data

Either **CONTROL** **SHIFT** B or **CONTROL** **SHIFT** V was executed and no more data could be retrieved from the current variable file. If variable data was being read during output then this would indicate the end of output.

Out of Variable Blocks

Either **CONTROL** **SHIFT** F or **CONTROL** **SHIFT** B was executed and there were no variable blocks found after the cursor position.

Overflow error

During a Column Add or a Row Add, the running total exceeded 38 digits. Even if fixed-point addition is specified, floating-point addition is used internally and fixed-point is only handled when the result is to be printed out. This is a rare error.

OUTPUT ERRORS

Whenever an error is generated during output the cursor will be left at the place in text where the error was encountered.

Format error

During output, PaperClip could not make the line fit between the margins. There is no break in the line — no spaces, breakpoints, or conditional hyphens were found. Check the margin settings, or that the outline does not descend beyond five levels.

Syntax error

A formatting directive could not be interpreted. Check to make sure that the directive is entered properly.

Margin error

The margins have been set to an illegal value. The left margin must always be less than the right margin. The `✓ma` directive must not make the left margin less than 1. Check to make sure that your margins are set up properly and that the `✓ma` and `✓ai` values are not too large.

Paging error

The total number of lines established by adding up the `✓hd`, `✓ft`, `✓vp`, `✓tm` and `✓pg` values must not exceed the total number of lines on the page set by the `✓pp` directive. Also, the `✓vp` value must be less than the `✓pg` value. Check all paging directives, notably the `✓hd` and `✓ft` values.

Header error

This error can occur when either the header or footer is to be printed. It is usually caused by the header overflowing the margins. Another cause has to do with the centering of the central portion of the header/footer. If it cannot be centered properly without overlapping either the left portion or the right portion then this error will be generated.

Illegal quantity error

A value outside of acceptable bounds was encountered while evaluating a number for a directive. Change the number. Check for a missing `return` marker.

APPENDIX D: PRINTER FILES

WHAT A PRINTER FILE IS

One of PaperClip III's strongest features is the ability to use virtually all the possible features of a printer. This powerful capability is possible through the use of individual printer files which tell PaperClip III how to communicate with your printer. Each printer file contains a listing the functions that printer is capable of performing, and the codes used to control those functions.

Although many printers perform very similar functions, such as underlining, the codes and commands chosen by various printer manufacturers to control these functions varies widely. Printer files are used to compensate for this lack of standardization.

So before you can do any printing with PaperClip III, you must select the appropriate printer file using the setup overlay. If you choose the wrong printer file, don't worry, nothing will be harmed — although your printout may be unreadable. If the printer file isn't right, PaperClip III won't be able to control the printer properly.

CHOOSING A PRINTER FILE

The printer files supplied on the PaperClip III diskette cover many popular printers. In most cases, one of these will properly match your printer. Even if none match perfectly, you may find one that is close enough to be satisfactory. In the event that none of the printer files supplied will accomodate your particular printer, see **Creating your own Printer File**, above.

PRINTER MENU OPTIONS

<u>Printers</u>	<u>Printer File Used</u>
Commodore Printers	
Commodore 1515, 1525	Commodore MPS801
Commodore MPS 801	Commodore MPS801
Commodore 1526	Commodore MPS802
Commodore MPS 802	Commodore MPS802
Commodore MPP 1361	Unavailable at this time
Commodore MPS 1000	Commodore 1000
Commodore MPS 803	Commodore MPS803
Epson Printers	
Epson MX Series	Epson MX
Epson MX III Series (Grafrax Plus)	Epson MX III

Printers

Epson FX and RX Series
Epson LQ1500
Epson LX80

Star Micronics Printers

Gemini 10/10X
Gemini 15/15X
Star Micronics SG10C
Star Micronics NX10

Okidata Printers

Okidata ML82/ML82A/ML83A
Okidata ML84 (some ML92)
Okidata ML92 (some ML84)
Okimate 10

Miscellaneous Printers

NEC PC8023A
NEC Spinwriter 5530/7730
NEC Pinwriter P6/P7
C. Itoh 8510A
C. Itoh 1550
Seikosha GP-550CD
Centronics 737
Canon 1080A
Citizen MSP-10/15, MSP-20/25
Mannesman Tally MT160

More Miscellaneous Printers

Blue Chip M120/10
Juki 6000
Juki 6100
Panasonic KXP1090
Panasonic KXP1091
Silver Reed EXP400
Silver Reed EXP500
Commodore Ascii
True Ascii
True Ascii with backspace
Diablo Compatible Printers

Printer File Used

Epson FX
Epson LQ1500
Epson LX

Gemini 10X
Gemini 10X
Star SG10C
Star NX10

Okidata 82
Okidata 84
Okidata 92
Okimate 10
Okidata 120

C. Itoh 8510A
Spinwriter 5530
NEC Pinwriter P6
C. Itoh 8510A
C. Itoh 1550s
Seikosha GP550
Centronics 737
Canon 1080a
Epson FX
M.Tally 160/180

Epson FX
Diablo
Diablo
Panasonic 1090
Panasonic 1091
Diablo
Diablo
Commodore Ascii
Ascii
Ascii Backspace
Diablo

NOTE ABOUT INTERFACE CARDS

If you are using an interface with your printer, you should be aware of the following information:

Most interface cards are set up to perform ASCII conversions. PaperClip III requires NON-ASCII conversion. Check your interface manual for how to alter the settings. Many interfaces have a dip switch that controls this setting.

If your printer interface uses a secondary address to disable ASCII conversion, you may wish to alter your printer file. To do so, follow this procedure.

With PaperClip III running and your printer file loaded, press **CONTROL**, then enter * **RETURN**

Enter: -print edit 64 (-print edit 128)



Now move the **CF** until the ">" is pointing at Secondary address for text. Press **RETURN**. Enter the secondary address recommended by your interface and then press **RETURN**, and enter **F5**

Move to "Save Configuration to Disk" and press **RETURN RETURN**. When asked to "Replace existing file?" enter Y for yes. When asked "Save printer file?" answer Y

APPENDIX E: PRINTER CONNECTIONS

SERIAL BUS

PaperClip III can work with printers connected to the Commodore computer in 3 ways. The most common printer hookup uses the **serial bus**. If you are using a Commodore printer, or a non-Commodore printer with an interface, the cable for the printer will plug into a round connector on the rear of the disk drive.

Each serial printer and/or interface has a 'device number'. PaperClip III uses these numbers to control each disk drive and printer. The most common device number for a printer is 4. PaperClip III uses a default of **device 4**.

RS232 PRINTER OUTPUT

If your printer uses an RS232 connection to receive data, PaperClip III can use an RS232 interface connected to the **user port** at the left rear of the Commodore.

There are two types of RS232 interfaces, those designed for the Commodore 64&128 computers and older interfaces meant for VIC-20 computers. PaperClip III has been tested with the Commodore 1011A interface.

Select direct RS232 output via the **PaperClip File Options** menu. Press



Move the highlight bar to **Printer Output**.

Use the + and - keys to select **RS232**.

The menu entries under Printer Output are used to set the correct RS232 parameters needed by your RS232 printer and interface.

Set the **RS232 Baud Rate** to match that used by your printer. Refer to your printer manual for the possible settings. Start with a fairly low setting, say 50 baud, before trying faster rates. For most printers, best throughput will be attained with 1200 to 4800 baud.

RS232 Word Length must be matched with that of the printer.

RS232 Parity must match the parity used in the printer. If you are not sure of the correct setting, select **NONE**.

RS232 Handshaking — There are four selections possible.

The entries labeled **Inverted** are meant for use with older VIC-20 style interfaces. The **Standard** setting should be used with proper interfaces designed for the Commodore 64 and 128 computers.

If you select **3-line**, PaperClip III will ignore any signals from the printer to pause, or delay output. This can be useful when testing various settings and interface combinations. At high baud rates, selecting 3-line will result in PaperClip III producing output faster than the printer can print it, resulting in missing or garbled text.

X-line allows PaperClip III to properly respond to handshaking (data flow control) signals from the RS232 printer. PaperClip III will monitor the **data set ready** and **clear to send** signals from the printer.

RS232 INTERFACE CONNECTIONS

PaperClip III generates the RS232 output signals internally, and does not utilize the built-in RS232 software of the Commodore 128.

PaperClip III uses the following 5 signals to communicate with an RS232 printer.

- DTR** Data Terminal Ready
 Tells the printer when PaperClip III is ready to communicate
- DSR** Data Set Ready
 Signal from the printer indicating the printer is ready to print.
- RTS** Request to Send
 PaperClip III uses this signal to indicate that it wants to send more data to the printer
- CTS** Clear To Send
 Used by the printer to tell PaperClip III when it is ready to receive more data
- XMT** Transmitted Data
 This line is used to send the actual data to be printed

Note: Because the hardware in the Commodore does not supply the proper RS232 voltage levels, an interface will be needed.

Signal	User Port Connection	Signal Direction	RS232 pin
DTR	Pin E	To printer	20
DSR	Pin L	From printer	6
RTS	Pin D	To printer	4
CTS	Pin K	From printer	5
XMT	Pin M	To printer	2

The following sequence occurs during printing to an RS232 printer. If 3-line handshaking has been selected, remember that PaperClip III will

ignore the CTS and DSR signals from the printer.

- Set DTR and RTS to true. This tells the printer that PaperClip III is ready to print, and has data waiting.

The following process is repeated until the text has been printed.

- Check the DSR signal. If it is false, abort the output. If this is the very first character to be printed, the message **Output terminated** will then appear. If DSR goes false during further printing, the message **Device not present** will appear.
- Check the CTS signal. If true, proceed to sending a character to the printer. If false, go back and check DSR again. This continues until CTS becomes true. While PaperClip III is waiting for CTS, the CONTROL key can be used to abort output.
- Send a character to the printer, check DSR and CTS again.

Note: RS232 communications is wrought with complications. As such, it can be frustrating for a novice to set up. If you are having great difficulty, seek help from your local computer dealer.

One final note — there is no such thing as 'standard' RS232. Each printer, interface and computer manufacturer interprets RS232 differently. The names used to describe signals and pins vary, even the physical connectors may not match. RS232 requires ingenuity, patience, and good guesswork.

PARALLEL PRINTER OUTPUT

PaperClip III can use a simple adaptor plugged into the user port to directly drive printers containing a Centronics parallel connection. These adaptors are often sold as part of a package containing both software and the adaptor. PaperClip III does not need the software supplied with the adaptor, it uses its own.

Note: This is not to be confused with a parallel printer connected to the Commodore via an interface plugged into the rear of the disk drive.

Pins used for parallel printing via the user port.

Signal	6526 Pin	User Port Pin
Parallel Data	PB0	C
	PB1	D
	PB2	E
	PB3	F
	PB4	H
	PB5	J
	PB6	K
(MSB)	PB7	L
Strobe (active low)	PA2	M
Printer busy (or ACKNLG)	FLAG	B

When using a direct parallel adapter with PaperClip III, turn the printer on **after** PaperClip III has started up. If you turn the printer on ahead of time, PaperClip III may not realize the printer is ready to go. If this happens, turn the printer off and back on.

APPENDIX F: DISKCOPY PROGRAM

On the PaperClip III disk is a program which allows you to make duplicate copies of your important disks. If you have a different disk copying program, such as the DOS shell program supplied by Commodore on the 1571 demo disk, you should use that.

Remember to copy each side of the original disk onto a *separate* disk. The dictionary side of the PaperClip III 128 diskette contains the printer files for Commodore printers and compatibles. You may want to erase unneeded printer files from a spare copy of the dictionary disk, providing more room for additional words in the dictionary. Since the dictionary size is limited mainly by disk space, 1571 owners may want to copy dictionary files onto a disk formatted double-sided (1571 format). This will provide room for about 100,000 words.

DISKCOPY

Diskcopy allows you to use a single disk drive such as the Commodore 1541 or 1571 to duplicate the contents of a disk (unless it is copy-protected). To use it, turn your computer on without the PaperClip III disk in the disk drive. C128 owners must use 64 emulation mode. Now, put the PaperClip III disk in the disk drive, close the drive door, and type

LOAD'DISKCOPY',8 RETURN

When READY appears, enter RUN If you get an error, and READY. appears again, type RUN and press Then be sure to enter your destination disk before continuing. Insert a blank disk to be formatted. Follow the program's instructions on the screen to make your backup. The disk you want to copy is called the source, or original disk. The new copy may be referred to as the copy, target, or destination disk.

Note: When the program requests that you "Insert Destination Disk to be formatted," be sure you insert a blank disk with no write-protect tab. Any data that may be on that disk will be erased.

As a precaution, it is a good idea to put a write-protect tab ON your source disk. This will prevent accidental erasure of your program disk.

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